

Service Manual

DV6200 /U1B, /F1N, /N1B, /N1G, /S1G

DVD Player

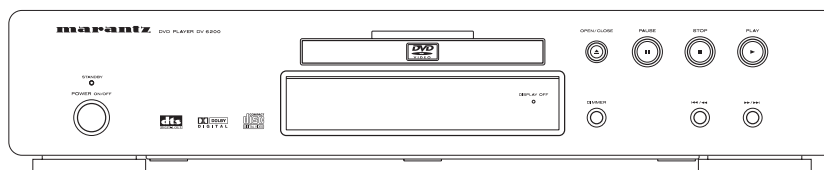


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Please use this service manual with referring to the user guide (D.F.U) without fail.

修理の際は、必ず取り扱い説明書を準備し操作方法を確認の上作業を行ってください。

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DV6200

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Parts for your **MARANTZ** equipment are generally available to our National Marantz Subsidiary or Agent.

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Parts can be ordered either by mail or by Fax.. In both cases, the correct part number has to be specified.

The following information must be supplied to eliminate delays in processing your order :

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2. Complete part numbers and quantities required
3. Description of parts
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5. Way of shipment
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SHOCK, FIRE HAZARD SERVICE TEST :

CAUTION : After servicing this appliance and prior to returning to customer, measure the resistance between either primary AC cord connector pins (with unit NOT connected to AC mains and its Power switch ON), and the face or Front Panel of product and controls and chassis bottom.

Any resistance measurement less than 1 Megohms should cause unit to be repaired or corrected before AC power is applied, and verified before it is return to the user/customer.

Ref. UL Standard No. 1492.

In case of difficulties, do not hesitate to contact the Technical
Department at above mentioned address.

1. TECHNICAL SPECIFICATIONS

DVD Player

Power supply (U)	AC 120V, 60 Hz
(N)	AC 230V, 50 Hz
(S)	AC 220-230V, 50/60 Hz
(F)	AC 100V, 50/60 Hz
Power consumption (U, N, S)	16 W
(F)	15 W
Weight	7.7 lbs (3.5 kg)
External dimensions (W X H X D)	17.3" X 3.5" X 12.3" (440 x 88 x 312 mm)
Signal system (U, F)	NTSC
(N, S)	PAL 625/50, NTSC 525/60
Laser	Semiconductor laser, wavelength 650 nm (DVD), 780 nm (CD)
Frequency range (audio)	DVD: fs = 96 kHz 4 Hz - 44 kHz
.....	fs = 48 kHz 4 Hz - 22 kHz
.....	CD: 4 Hz - 20 kHz
Signal-to-noise ratio (audio)	More than 105 dB
Dynamic range (audio)	More than 100 dB
Harmonic distortion (audio)	0.003 %
Wow and flutter Below measurable level	(less than + 0.001 % (W.PEAK))
Operating conditions	Temperature: 41°F to 95°F (5°C to 35°C), Operation status: Horizontal

Outputs

Video output	1.0 V(p-p), 75 ohms, negative sync., RCA jack x 1
S-video output	(Y) 1.0 V(p-p), 75 ohms, negative sync., Mini DIN 4-pin x 1
.....	(C) 0.286 V(p-p), 75 ohms
Component video output (U, S, F)	(Y) 1.0 V(p-p), 75 ohms, negative sync., RCA jack x 1
.....	(Cb)/(Cr) 0.7 V(p-p), 75 ohms
D2 video output (F)	(Y) 1.0 V(p-p), 75 ohms, (Cb)/(Cr) 0.7 V(p-p), 75 ohms
.....	14-pin, 2-line, 1.27 mm-pitch
R/G/B output (N)	0.7Vp-p 21pin SCART connector
Audio output (digital audio)	0.5 V(p-p), 75 ohms, RCA jack x 1
Audio output (optical audio)	Optical connector x 1
Audio output (analog audio) (U, S, F)	2.0 Vrms (1 kHz, 0 dB), 330 ohms, RCA jack (L, R) x 2
(N)	1.0 Vrms (1 kHz, -6 dB), 330 ohms, RCA jack (L, R) x 1

Supplied Accessories

Video cable	1
Audio cable	1
Remote Control cable	1
Remote control	1
Batteries (AAA)	2

2. PRODUCT SAFETY SERVICING GUIDELINES FOR VIDEO PRODUCTS

CAUTION : DO NOT ATTEMPT TO MODIFY THIS PRODUCT IN ANY WAY, NEVER PERFORM CUSTOMIZED INSTALLATIONS WITHOUT MANUFACTURER'S APPROVAL. UNAUTHORIZED MODIFICATIONS WILL NOT ONLY VOID THE WARRANTY, BUT MAY LEAD TO YOUR BEING LIABLE FOR ANY RESULTING PROPERTY DAMAGE OR USER INJURY.

SERVICE WORK SHOULD BE PERFORMED ONLY AFTER YOU ARE THOROUGHLY FAMILIAR WITH ALL OF THE FOLLOWING SAFETY CHECKS AND SERVICING GUIDELINES. TO DO OTHERWISE, INCREASES THE RISK OF POTENTIAL HAZARDS AND INJURY TO THE USER.

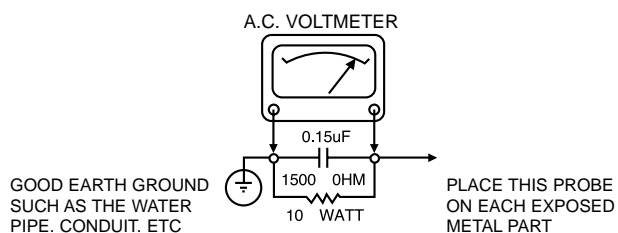
WHILE SERVICING, USE AN ISOLATION TRANSFORMER FOR PROTECTION FROM A.C. LINE SHOCK.

SAFETY CHECKS

AFTER THE ORIGINAL SERVICE PROBLEM HAS BEEN CORRECTED. A CHECK SHOULD BE MADE OF THE FOLLOWING.

SUBJECT : FIRE & SHOCK HAZARD

1. BE SURE THAT ALL COMPONENTS ARE POSITIONED IN SUCH A WAY AS TO AVOID POSSIBILITY OF ADJACENT COMPONENT SHORTS. THIS IS ESPECIALLY IMPORTANT ON THOSE MODULES WHICH ARE TRANSPORTED TO AND FROM THE REPAIR SHOP.
2. NEVER RELEASE A REPAIR UNLESS ALL PROTECTIVE DEVICES SUCH AS INSULATORS, BARRIERS, COVERS, SHIELDS, STRAIN RELIEFS, POWER SUPPLY CORDS, AND OTHER HARDWARE HAVE BEEN REINSTALLED PER ORIGINAL DESIGN. BE SURE THAT THE SAFETY PURPOSE OF THE POLARIZED LINE PLUG HAS NOT BEEN DEFEATED.
3. SOLDERING MUST BE INSPECTED TO DISCOVER POSSIBLE COLD SOLDER JOINTS, SOLDER SPLASHES OR SHARP SOLDER POINTS. BE CERTAIN TO REMOVE ALL LOOSE FOREIGN PARTICLES.
4. CHECK FOR PHYSICAL EVIDENCE OF DAMAGE OR DETERIORATION TO PARTS AND COMPONENTS, FOR FRAYED LEADS, DAMAGED INSULATION (INCLUDING A.C. CORD), AND REPLACE IF NECESSARY. FOLLOW ORIGINAL LAYOUT, LEAD LENGTH AND DRESS.
5. NO LEAD OR COMPONENT SHOULD TOUCH A RECEIVING TUBE OR A RESISTOR RATED AT 1 WATT OR MORE. LEAD TENSION AROUND PROTRUDING METAL SURFACES MUST BE AVOIDED.
6. ALL CRITICAL COMPONENTS SUCH AS FUSES, FLAMEPROOF RESISTORS, CAPACITORS, ETC. MUST BE REPLACED WITH EXACT FACTORY TYPES. DO NOT USE REPLACEMENT COMPONENTS OTHER THAN THOSE SPECIFIED OR MAKE UNRECOMMENDED CIRCUIT MODIFICATIONS.
7. AFTER RE-ASSEMBLY OF THE SET ALWAYS PERFORM AN A.C. LEAKAGE TEST ON ALL EXPOSED METALLIC PARTS OF THE CABINET, (THE CHANNEL SELECTOR KNOB, ANTENNA TERMINALS, HANDLE AND SCREWS) TO BE SURE THE SET IS SAFE TO OPERATE WITHOUT DANGER OF ELECTRICAL SHOCK. DO NOT USE A LINE ISOLATION TRANSFORMER DURING THIS TEST USE AN A.C. VOLTMETER, HAVING 5000 OHMS PER VOLT OR MORE SENSITIVITY, IN THE FOLLOWING MANNER; CONNECT A 1500 OHM 10 WATT RESISTOR, PARALLELED BY A .15 MFD. 150.V A.C TYPE CAPACITOR BETWEEN A KNOWN GOOD EARTH GROUND (WATER PIPE, CONDUIT, ETC.) AND THE EXPOSED METALLIC PARTS, ONE AT A TIME. MEASURE THE A.C. VOLTAGE ACROSS THE COMBINATION OF 1500 OHM RESISTOR AND .15 MFD CAPACITOR. REVERSE THE A.C. PLUG AND REPEAT A.C. VOLTAGE MEASUREMENTS FOR EACH EXPOSED METALLIC PART. VOLTAGE MEASURED MUST NOT EXCEED 75 VOLTS R.M.S. THIS CORRESPONDS TO 0.5 MILLIAMPS A.C. ANY VALUE EXCEEDING THIS LIMIT CONSTITUTES A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED IMMEDIATELY.



SUBJECT: GRAPHIC SYMBOLS



THE LIGHTNING FLASH WITH APROWHEAD SYMBOL, WITHIN AN EQUILATERAL TRIANGLE, IS INTENDED TO ALERT THE SERVICE PERSONNEL TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK.



THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE SERVICE PERSONNEL TO THE PRESENCE OF IMPORTANT SAFETY INFORMATION IN SERVICE LITERATURE.

SUBJECT : X-RADIATION

1. BE SURE PROCEDURES AND INSTRUCTIONS TO ALL SERVICE PERSONNEL COVER THE SUBJECT OF X-RADIATION. THE ONLY POTENTIAL SOURCE OF X-RAYS IN CURRENT T.V. RECEIVERS IS THE PICTURE TUBE. HOWEVER, THIS TUBE DOES NOT EMIT X-RAYS WHEN THE HIGH VOLTAGE IS AT THE FACTORY SPECIFIED LEVEL. THE PROPER VALUE IS GIVEN IN THE APPLICABLE SCHEMATIC. OPERATION AT HIGHER VOLTAGES MAY CAUSE A FAILURE OF THE PICTURE TUBE OR HIGH VOLTAGE SUPPLY AND, UNDER CERTAIN CIRCUMSTANCES, MAY PRODUCE RADIATION IN EXCESS OF DESIRABLE LEVELS.
2. ONLY FACTORY SPECIFIED C.R.T. ANODE CONNECTORS MUST BE USED. DEGAUSSING SHIELDS ALSO SERVE AS AN X-RAY SHIELD IN COLOR SETS, ALWAYS RE-INSTALL THEM.
3. IT IS ESSENTIAL THAT SERVICE PERSONNEL HAVE AVAILABLE AN ACCURATE AND RELIABLE HIGH VOLTAGE METER. THE CALIBRATION OF THE METER SHOULD BE CHECKED PERIODICALLY AGAINST A REFERENCE STANDARD, SUCH AS THE ONE AVAILABLE AT YOUR DISTRIBUTOR.
4. WHEN THE HIGH VOLTAGE CIRCUITRY IS OPERATING PROPERLY THERE IS NO POSSIBILITY OF AN X-RADIATION PROBLEM. EVERY TIME A COLOR CHASSIS IS SERVICED, THE BRIGHTNESS SHOULD BE RUN UP AND DOWN WHILE MONITORING THE HIGH VOLTAGE WITH A METER TO BE CERTAIN THAT THE HIGH VOLTAGE DOES NOT EXCEED THE SPECIFIED VALUE AND THAT IT IS REGULATING CORRECTLY. WE SUGGEST THAT YOU AND YOUR SERVICE ORGANIZATION REVIEW TEST PROCEDURES SO THAT VOLTAGE REGULATION IS ALWAYS CHECKED AS A STANDARD SERVICING PROCEDURE AND THAT THE HIGH VOLTAGE READING BE RECORDED ON EACH CUSTOMER'S INVOICE.
5. WHEN TROUBLESHOOTING AND MAKING TEST MEASUREMENTS IN A PRODUCT WITH A PROBLEM OF EXCESSIVE HIGH VOLTAGE, AVOID BEING UNNECESSARILY CLOSE TO THE PICTURE TUBE AND THE HIGH VOLTAGE SUPPLY. DO NOT OPERATE THE PRODUCT LONGER THAN IT IS NECESSARY TO LOCATE THE CAUSE OF EXCESSIVE VOLTAGE.
6. REFER TO HV. B+ AND SHUTDOWN ADJUSTMENT PROCEDURES DESCRIBED IN THE APPROPRIATE SCHEMATIC AND DIAGRAMS (WHERE USED).

SUBJECT: IMPLOSION

1. ALL DIRECT VIEWED PICTURE TUBES ARE EQUIPPED WITH AN INTEGRAL IMPLOSION PROTECTION SYSTEM, BUT CARE SHOULD BE TAKEN TO AVOID DAMAGE DURING INSTALLATION, AVOID SCRATCHING THE TUBE. IF SCRATCHED REPLACE IT.
2. USE ONLY RECOMMENDED FACTORY REPLACEMENT TUBES.

SUBJECT : TIPS ON PROPER INSTALLATION

1. NEVER INSTALL ANY PRODUCT IN A CLOSED-IN RECESS, CUBBY-HOLE OR CLOSELY FITTING SHELF SPACE, OVER OR CLOSE TO HEAT DUCT, OR IN THE PATH OF HEATED AIR FLOW.
2. AVOID CONDITIONS OF HIGH HUMIDITY SUCH AS: OUTDOOR PATIO INSTALLATIONS WHERE DEW IS A FACTOR, NEAR STEAM RADIATORS WHERE STEAM LEAKAGE IS A FACTOR, ETC.
3. AVOID PLACEMENT WHERE DRAPERIES MAY OBSTRUCT REAR VENTING. THE CUSTOMER SHOULD ALSO AVOID THE USE OF DECORATIVE SCARVES OR OTHER COVERINGS WHICH MIGHT OBSTRUCT VENTILATION.
4. WALL AND SHELF MOUNTED INSTALLATIONS USING A COMMERCIAL MOUNTING KIT, MUST FOLLOW THE FACTORY APPROVED MOUNTING INSTRUCTIONS. A PRODUCT MOUNTED TO A SHELF OR PLATFORM MUST RETAIN ITS ORIGINAL FEET (OR THE EQUIVALENT THICKNESS IN SPACERS) TO PROVIDE ADEQUATE AIR FLOW ACROSS THE BOTTOM. BOLTS OR SCREWS USED FOR FASTENERS MUST NOT TOUCH ANY PARTS OR WIRING. PERFORM LEAKAGE TEST ON CUSTOMIZED INSTALLATIONS.
5. CAUTION CUSTOMERS AGAINST THE MOUNTING OF A PRODUCT ON SLOPING SHELF OR A TILTED POSITION, UNLESS THE PRODUCT IS PROPERLY SECURED.
6. A PRODUCT ON A ROLL-ABOUT CART SHOULD BE STABLE ON ITS MOUNTING TO THE CART. CAUTION THE CUSTOMER ON THE HAZARDS OF TRYING TO ROLL A CART WITH SMALL CASTERS ACROSS THRESHOLDS OR DEEP PILE CARPETS.
7. CAUTION CUSTOMERS AGAINST THE USE OF A CART OR STAND WHICH HAS NOT BEEN LISTED BY UNDERWRITERS LABORATORIES, INC. FOR USE WITH THEIR SPECIFIC MODEL OF TELEVISION RECEIVER OR GENERICALLY APPROVED FOR USE WITH T.V.'S OF THE SAME OR LARGER SCREEN SIZE.
8. CAUTION CUSTOMERS AGAINST THE USE OF EXTENSION CORDS. EXPLAIN THAT A FOREST OF EXTENSIONS SPROUTING FROM A SINGLE OUTLET CAN LEAD TO DISASTROUS CONSEQUENCES TO HOME AND FAMILY.

3. SERVICING PRECAUTIONS

CAUTION : Before servicing the DVD covered by this service data and its supplements and ADDENDUMS, read and follow the **SAFETY PRECAUTIONS**. **NOTE :** if unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions in this publications, always follow the safety precautions.

Remember Safety First:

General Servicing Precautions

1. Always unplug the DVD AC power cord from the AC power source before:
 - (1) Removing or reinstalling any component, circuit board, module, or any other assembly.
 - (2) Disconnection or reconnecting any internal electrical plug or other electrical connection.
 - (3) Connecting a test substitute in parallel with an electrolytic capacitor.
Caution : A wrong part substitution or incorrect polarity installation of electrolytic capacitors may result in an explosion hazard.
2. Do not spray chemicals on or near this DVD or any of its assemblies.
3. Unless specified otherwise in this service data, clean electrical contacts by applying an appropriate contact cleaning solution to the contacts with a pipe cleaner, cotton-tipped swab, or comparable soft applicator. Unless specified otherwise in this service data, lubrication of contacts is not required.
4. Do not defeat any plug/socket B+ voltage interlocks with which instruments covered by this service manual might be equipped.
5. Do not apply AC power to this DVD and/or any of its electrical assemblies unless all solid-state device heat sinks are correctly installed.
6. Always connect test instrument ground lead to the appropriate ground before connection the test instrument positive lead. Always remove the test instrument ground lead last.

Insulation Checking Procedure

Disconnect the attachment plug from the AC outlet and turn the power on. Connect an insulation resistance meter(500V) to the blades of the attachment plug. The insulation resistance between each blade of the attachment plug and accessible conductive parts (Note 1) should be more than 1M-ohm.

Note 1 : Accessible Conductive Parts including Metal panels, Input terminals, Earphone jacks, etc.

Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field effect transistors and semiconductor chip components.

The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

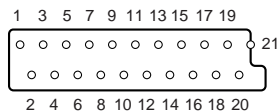
1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a GROUNDED-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device. Some solder removal devices not classified a "anti-static" can generate electrical charges sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charge sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil, or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

Caution : Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Normally harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

4. CONNECTION FACILITIES

4.1 Video performance (N only)



4.1.1 SCART

Pin No. TV (OUT)

Pin 1	Audio R out : 2Vrms
Pin 2	Audio R in : 2Vrms
Pin 3	Audio L out : 2Vrms
Pin 4	GND
Pin 5	GND
Pin 6	Audio L in : 2Vrms
Pin 7	Blue out/C in Blue : 0.7Vpp $\pm 0.1V$ into 75 Ohm *1 C : 300mVpp ± 30 into 75 Ohm *2
Pin 8	function switching out <2V : TV >5/<8 : asp.ratio 16 : 9 DVD/AUX >9.5/<12 : asp.ratio 4 : 3 DVD/AUX
Pin 9	GND
Pin 10	not connected
Pin 11	Green out:0.7Vpp $\pm 0.1V$ into 75 Ohm *1
Pin 12	not connected
Pin 13	GND
Pin 14	GND
Pin 15	Red/C out Red : 0.7Vpp $\pm 0.1V$ into 75 Ohm *1 C : 300mVpp ± 30 into 75 Ohm *2
Pin 16	fast switching out <0.4V into 75 Ohm=CVBS/S-Video 1</<3 into 75 Ohm=RGB
Pin 17	GND
Pin 18	GND
Pin 19	CVBS/Y out : 1Vpp $\pm 0.1V$ *1
Pin 20	CVBS/Y in : 1Vpp $\pm 0.1V$ *1
Pin 21	GND

Pin No. AUX (IN)

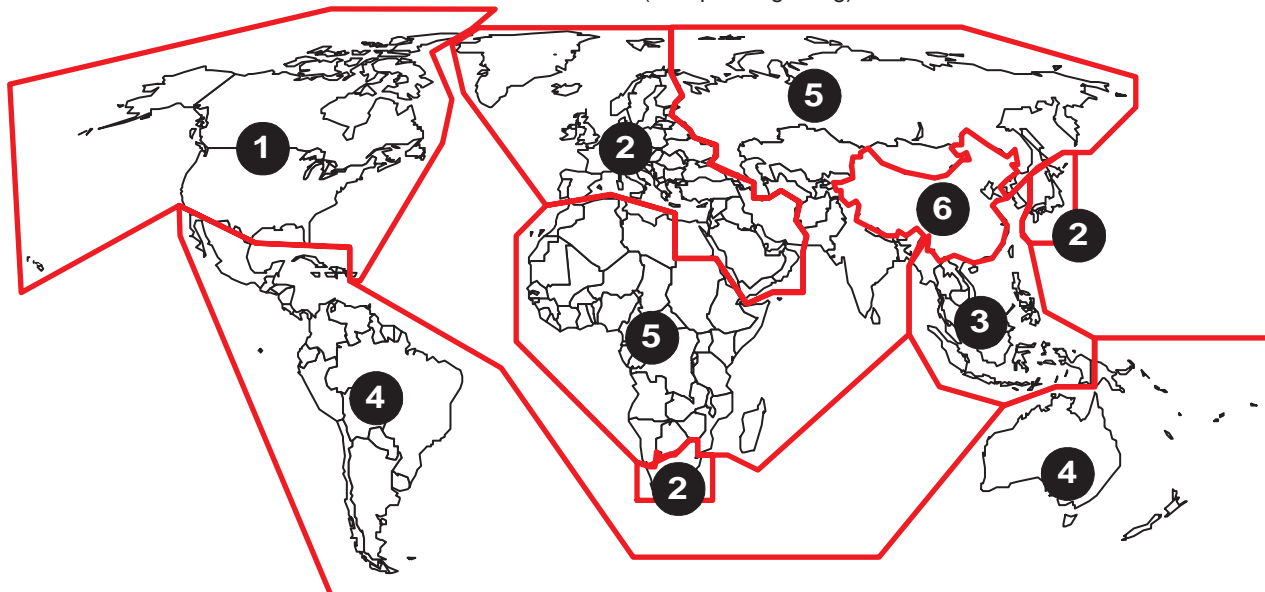
Pin 1	(Audio R out : 2Vrms)
Pin 2	Audio R in : 2Vrms
Pin 3	(Audio L out : 2Vrms)
Pin 4	GND
Pin 5	GND
Pin 6	Audio L in : 2Vrms
Pin 7	(Blue in/C out Blue : 0.7Vpp $\pm 0.1V$ into 75 Ohm *1 C : 300mVpp ± 30 into 75 Ohm *2)
Pin 8	(function switching in<2V : DVD >5/<8 : asp.ratio 16 : 9 AUX >9.5/<12 : asp.ratio 4 : 3 AUX)
Pin 9	GND
Pin 10	not connected
Pin 11	(Green in:0.7Vpp $\pm 0.1V$ into 75 Ohm)
Pin 12	not connected
Pin 13	GND
Pin 14	GND
Pin 15	(Red/C in Red : 0.7Vpp $\pm 0.1V$ into 75 Ohm *1 C : 300mVpp ± 30 into 75 Ohm *2)
Pin 16	(fast switching in <0.4V into 75 Ohm=CVBS/S-Video 1</<3 into 75 Ohm=RGB)
Pin 17	GND
Pin 18	GND
Pin 19	(CVBS/Y out : 1Vpp $\pm 0.1V$ *1)
Pin 20	CVBS/Y in : 1Vpp $\pm 0.1V$ *1
Pin 21	GND

*1 : 100% White *2 : Burst Level *3 : color bar(chroma level : 75%)

What are "regional codes"?

Motion picture studios want to control the home release of movies in different countries because theater releases aren't simultaneous (a movie may come out on DVD in the US when it's just hitting screens in Europe). Therefore they have required that the DVD standard include codes which can be used to lock out the playback of certain discs in certain geo-graphical regions. Players sold in each region will have that region's code built into the player. The player will refuse to play these "region coded" discs which are not allowed in the region. However, regional codes are entirely optional. Discs without codes will play on any player in any country. Some studios have already announced that only their new releases will have regional codes. There are six regions:

1. United States and Canada
2. Europe and Japan
3. Far East (except Japan & China)
4. South America and Oceania
5. Africa and the Middle East
6. China (except Hong Kong)



Map of DVD Regions

5. INFORMATIONS

REGION CODE

VERSION	REGION CODE	COUNTRY
/UXX	1	USA/CANADA
/FXX	2	JAPAN
/NXX	2	EUROPE
/SXX	3	SINGAPORE/HONGKONG

DVD INFORMATION

Below is a glossary of the new terms related to DVD.

Title:

A disc may have more than one story/movie on it, so each story/movie is called a "title".

For example, if there are 2 movies on the disc, they are separated into Title 1 and Title 2.

Chapter:

A title may also be separated into chapters.

For example, a movie (title) may be separated into 3 scenes (chapters).

Title 1			Title 2		
Chapter 1	Chapter 2	Chapter 3	Chapter 1	Chapter 2	Chapter 3

Subtitles:

DVDs are recorded with up to 32 different subtitle languages. If a disc has more than one subtitle language, you can select the subtitle language that you want to read.

Soundtrack language:







DVDs are recorded with up to 8 different soundtrack languages. If a disc has more than one language, you can select the soundtrack language that you want to listen to.

Multi-angles:

On some DVDs, scenes have been filmed from different angles (up to a maximum of 9). On these discs, you can select the angle that you want to watch. Please refer to the DVD's manual to see which scenes have multi-angles.

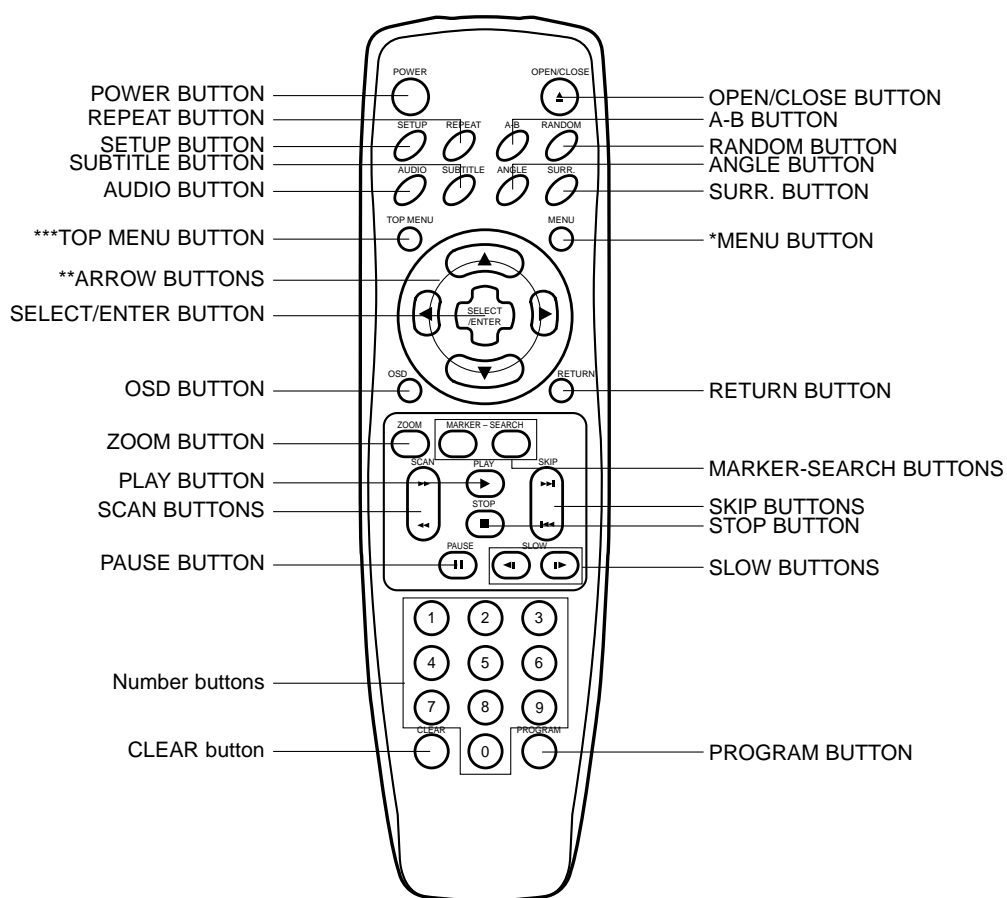
THE DISCS THAT THE DV6200 CAN HANDLE

The following discs can be played back with DV6200.

Types of playable discs and their marks	Diameter/ Playable sides	Playback time
DVD VIDEO 	DVD VIDEO	Digital audio Digital video (MPEG 2)
	12 cm (5 in.)/ single-sided	1 layer 2 layer 133 min. 242 min.
	12 cm (5 in.)/ double-sided	1 layer 2 layer 266 min. 484 min.
	DVD VIDEO	Digital audio Digital video (MPEG 2)
	8 cm (3 in.)/ single-sided	1 layer 2 layer 41 min. 75 min.
	8 cm (3 in.)/ double-sided	1 layer 2 layer 82 min. 150 min.
VIDEO CD 	VIDEO CD	Digital audio Digital video (MPEG 1) Max. 74 minutes
	VIDEO CD single	Digital audio Digital video (MPEG 1) Max. 20 minutes
CD 	CD	Digital audio
	12 cm (5 in.)/ single-sided	Max. 74 minutes
	CD single	Digital audio
	8 cm (3 in.)/ single-sided	Max. 20 minutes
	CD single	Digital audio
	8 cm (3 in.)/ single-sided	Max. 20 minutes
	CD single	Digital audio
HDCD N version ONLY 	HDCD	Digital audio
	12 cm (5 in.)/ single-sided	Max. 74 minutes
	HDCD single	Digital audio
	8 cm (3 in.)/ single-sided	Max. 20 minutes

Note: The regional code of the discs must meet to the regional code of the DV6200.

REMOTE CONTROL



*MENU BUTTON

USE THE MENU BUTTON TO DISPLAY THE MENU SCREEN INCLUDED ON SELECTED DVD VIDEO DISCS. TO OPERATE A MENU SCREEN, FOLLOW THE INSTRUCTIONS IN "USING A DVD MENU" .

**DIRECTIONAL ARROW BUTTONS

(UP, DOWN, LEFT, RIGHT) FOR USE IN HIGHLIGHTING A SELECTION ON A GUI MENU SCREEN, TITLE AND MENU SCREEN.

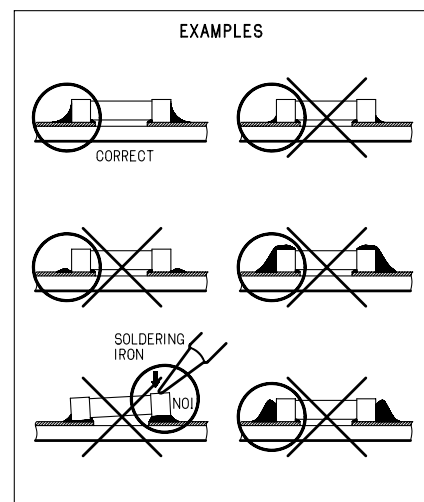
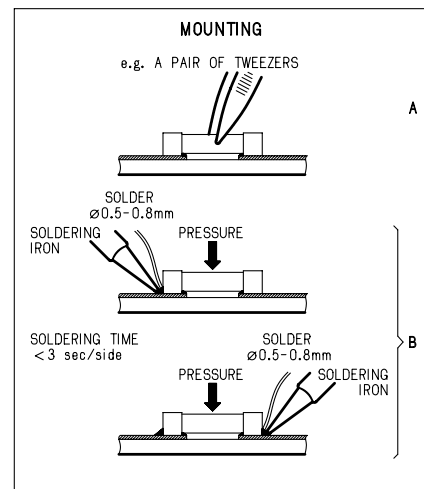
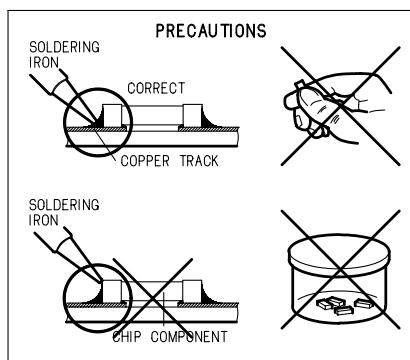
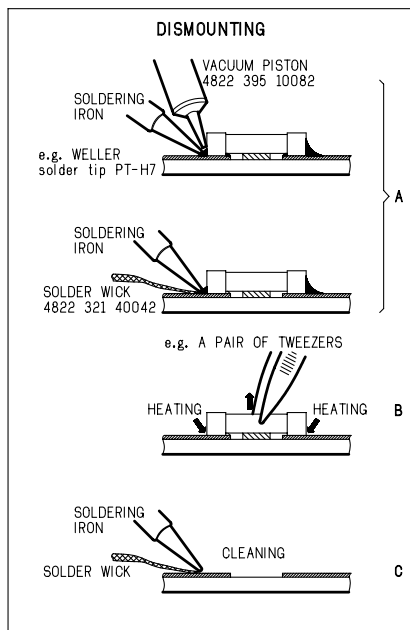
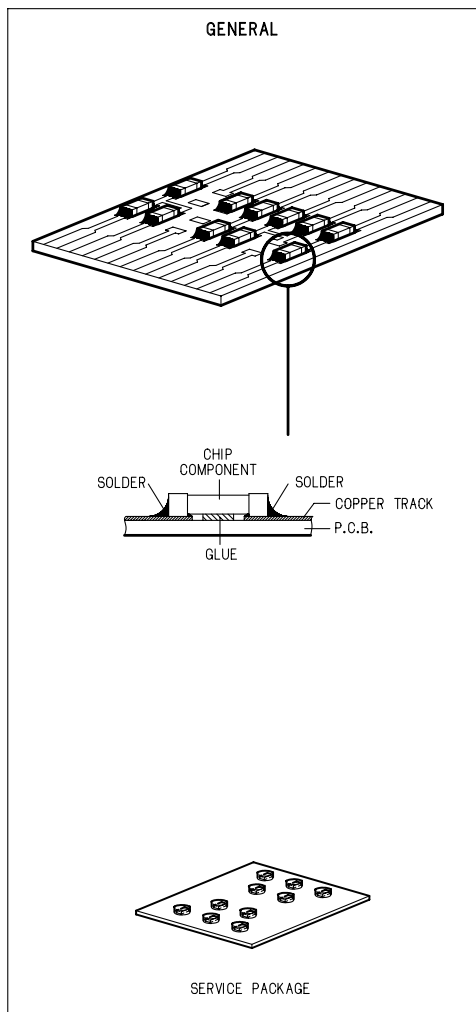
***TOP MENU BUTTON

USE THE TOP MENU BUTTON TO DISPLAY THE TITLE MENU INCLUDED ON SELECTED DVD VIDEO DISCS. TO OPERATE A MENU SCREEN, FOLLOW THE INSTRUCTIONS IN "USING A TITLE MENU" .

- This remote control supports two remote control codes: C1 and C2.
- When the unit is shipped from the factory the remote control is set to C1.
- To set the remote control to C2, hold down both the STOP button and "2" number button on the remote control for at least five seconds. (If the batteries in the remote control are replaced while the remote control is set to C2, the setting will revert C1.)
- To set the remote control back to C1, hold down both the STOP button and "1" number button on the remote control for at least five seconds.
- Also set the remote control codes of the player to the same setting as the remote control. (This setting is set to C1, when the unit is shipped from the factory)

6. SERVICING HINT

SERVICE HINTS



SERVICE TOOLS

Audio signals disc	4822 397 30184
Disc without errors (SBC444)+	
Disc with DO errors, black spots and fingerprints (SBC444A)	4822 397 30245
Disc (65 min 1kHz) without no pause	4822 397 30155
Max. diameter disc (58.0 mm)	4822 397 60141
Torx screwdrivers	
Set (straight)	4822 395 50145
Set (square)	4822 395 50132
13th order filter	4822 395 30204
DVD test disc	4822 397 10131

7. DISASSEMBLY

CAUTION BEFORE STARTING SERVICING

Electronic parts are susceptible to static electricity and may easily damaged, so do not forget to take a proper grounding treatment as required.

Many screws are used inside the unit. To prevent missing, dropping, etc. of the screws, always use a magnetized screw driver in servicing. Several kinds of screws are used and some of them need special cautions. That is, take care of the tapping screws securing molded parts and fine pitch screws used to secure metal parts. If they are used improperly, the screw holes will be easily damaged and the parts can not be fixed.

7.1 CABINET DISASSEMBLY

7.1.1 Top Case

1. Release 7 screws (A). (See Fig. 2-1)
2. Lift the top case with holding the back of it, and remove it in the direction of the arrow.

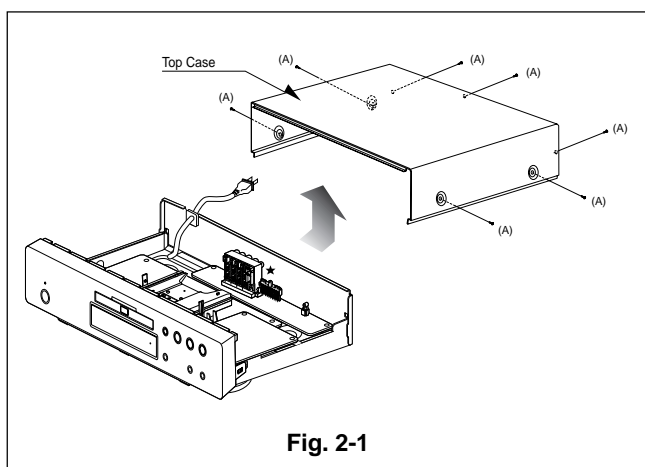


Fig. 2-1

7.1.2 Tray Door

1. Eject the disc tray.
2. Lift up the tray door in the direction of the arrow.

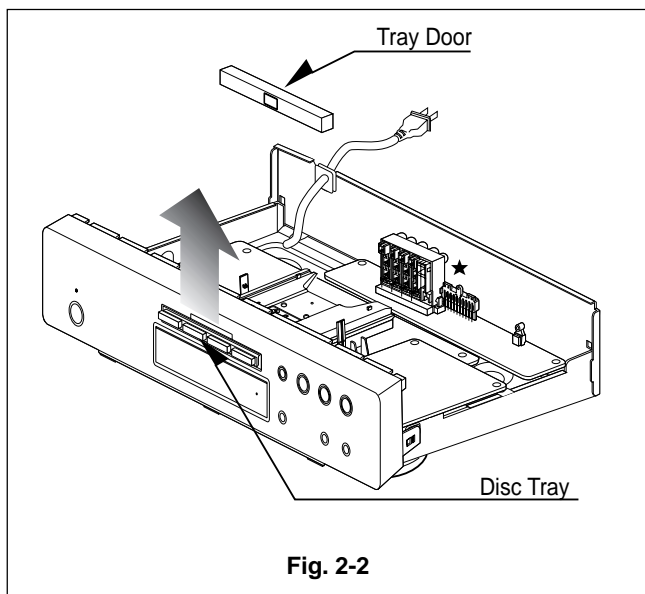


Fig. 2-2

7.1.3 Front Panel

1. Eject the disc tray. (See Fig. 2-2)
2. Remove the tray door. (See Fig. 2-2)
3. Pull the front panel toward you while pressing 7 stoppers to disengage, and remove the front panel. (See Fig. 2-3)

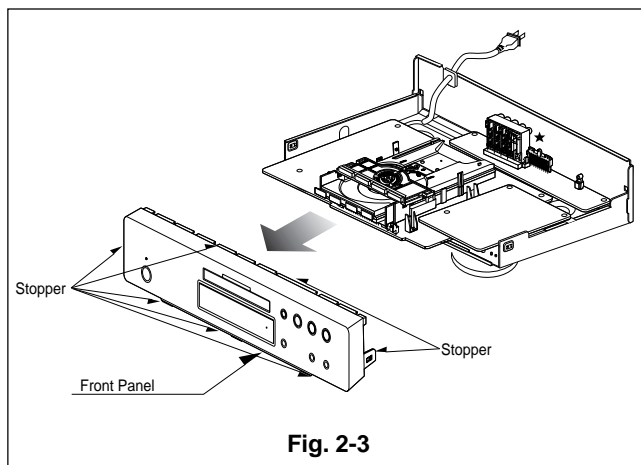
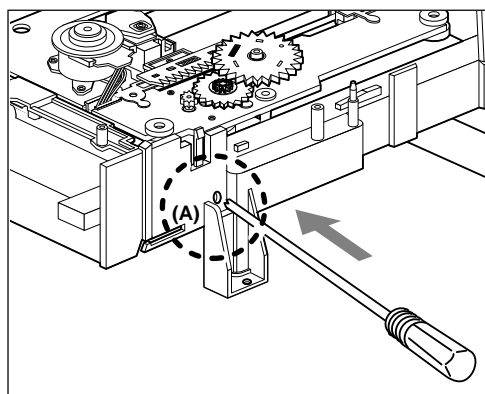


Fig. 2-3

REMARK: Before disassemble the front panel.



Press open/close button to open the tray. If the tray doesn't work, insert and push a small screwdriver in the emergency eject hole (A) at the right side. Then the tray comes out. After the first centimeter it is possible to pull the tray out by hand. Release the door cover of the tray.

7.2 CIRCUIT BOARD DISASSEMBLY

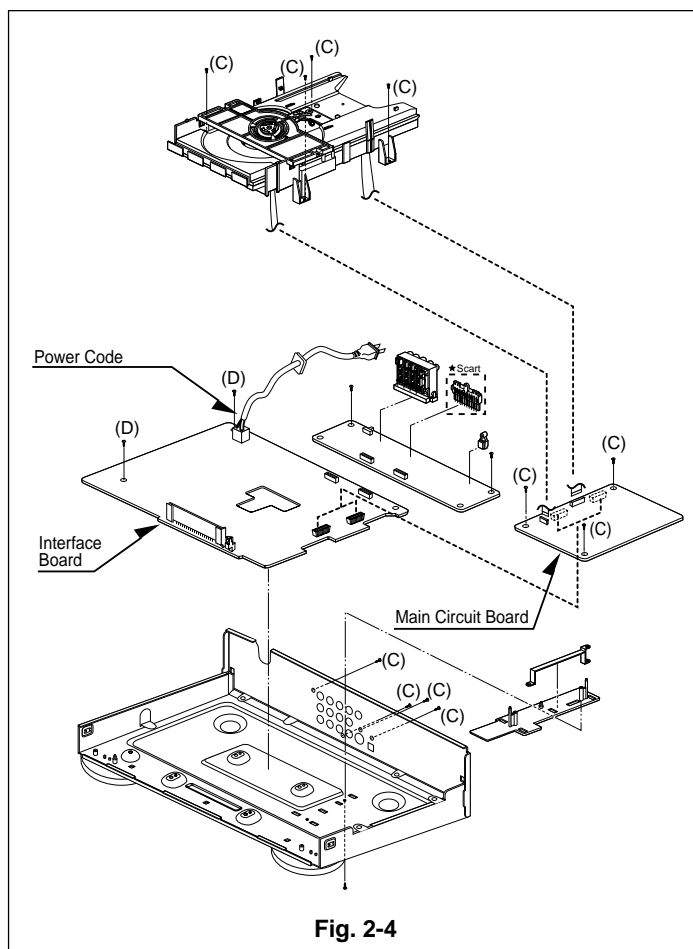
Note: Before removing the main circuit board, be sure to shortcircuit the laserdiode output land.
After replacing the main circuit board, open the land after inserting the flexible connector.
(Refer to Mechanism Disassembly)

7.2.1 Disassembling of Main Circuit Board and Interface Board

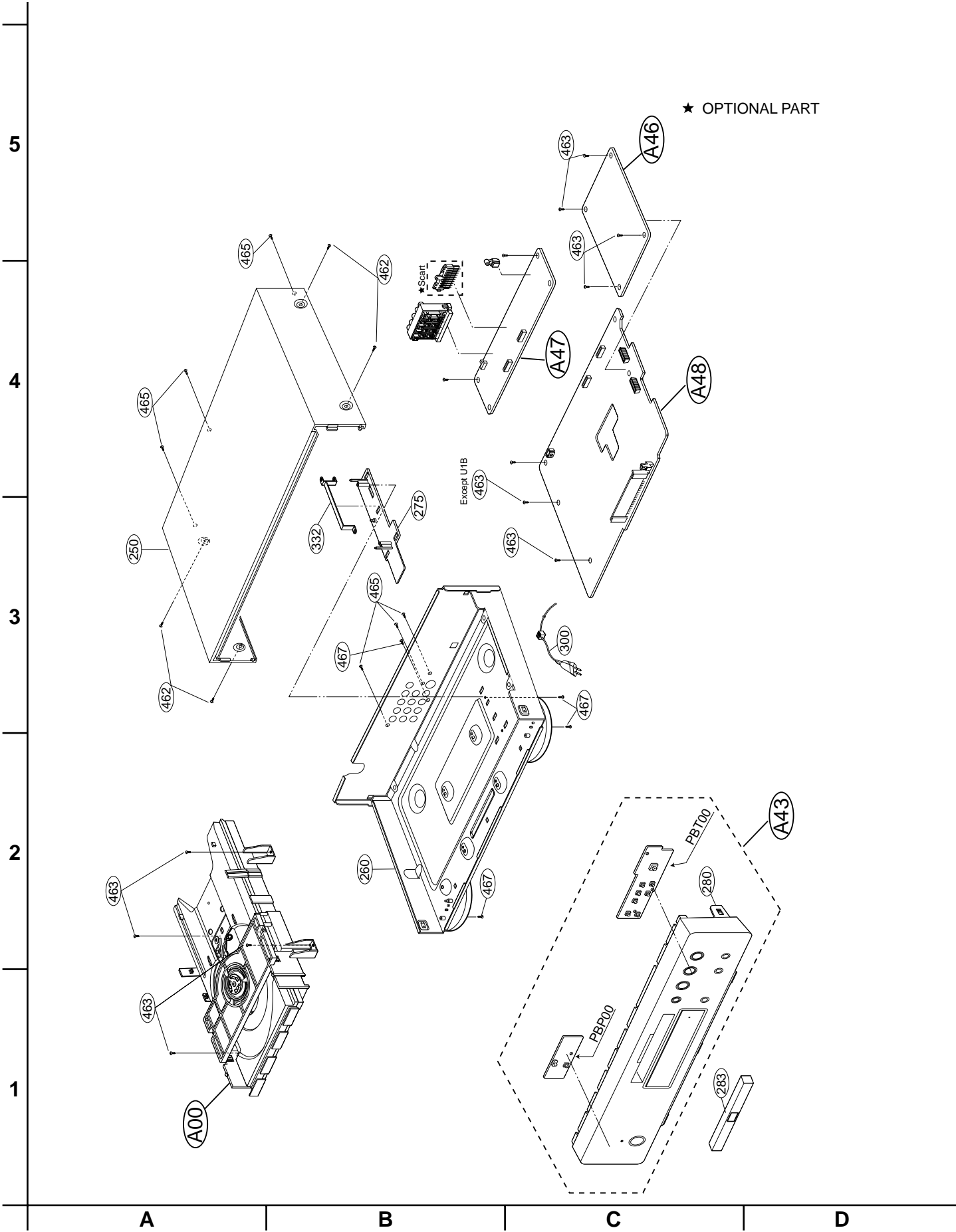
1. Remove the top case.(See Fig. 2-1)
2. Remove 12 screw (C).
3. Remove the deck from Main Circuit Board.
4. Remove Main Circuit Board from Interface Board.
5. Remove 2 screw (D).
6. Remove Interface Board from the chassis.

7.2.2 Digitron and Key Circuit Board

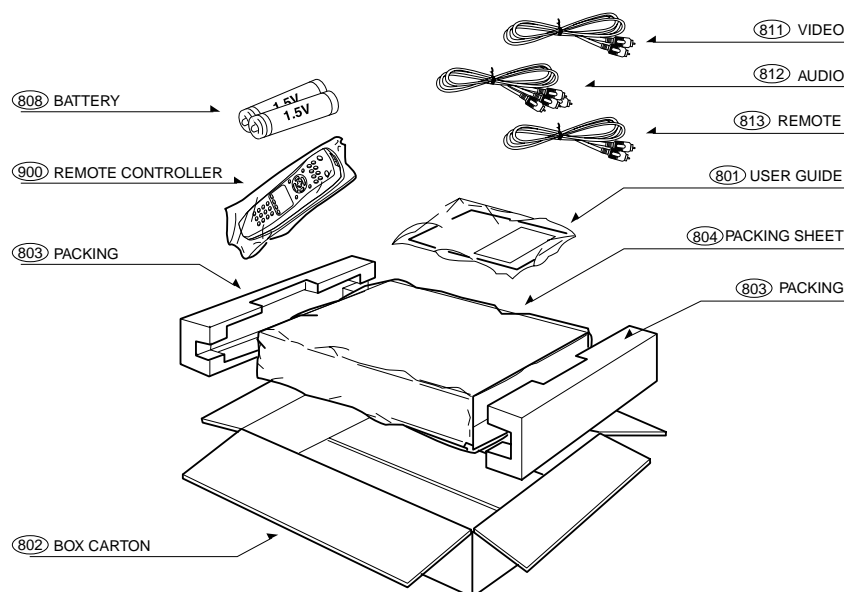
1. Remove the front panel.(See Fig. 2-3)
2. Remove the key circuit boards from the front panel.



8. EXPLODED VIEWS
8.1 Cabinet and Main Frame Section



8.2 Packing Accessory Section



POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
A00		9965 000 11762	DECK ASSY DP4 (2LD, BLDC)	345W304520
A43		nsp	BOARD ASSY FRONT	nsp
▲ A46 U		nsp	DVD MAIN PCB ASSY (FOR U)	*ZZ001950R
▲ A46 F		nsp	DVD MAIN PCB ASSY (FOR F)	*ZZ001940R
▲ A46 N		9965 000 11763	DVD MAIN PCB ASSY (FOR N)	*ZZ001860R
▲ A46 S		nsp	DVD MAIN PCB ASSY (FOR S)	*ZZ001960R
▲ A47		nsp	PWB(PCB) ASSY I/O	nsp
▲ A48		nsp	PWB(PCB) ASSY EVNT	nsp
250		nsp	CASE TOP COVER	nsp
260		nsp	CHASSIS ASSY MAIN	nsp
275		nsp	HOLDER MAIN PCB	nsp
280 U		nsp	PANEL ASSY FRONT	345W248060
280 F		nsp	PANEL ASSY FRONT	345W248040
280 N1B		9965 000 11764	PANEL ASSY FRONT	345W248020
280 N1G		9965 000 11768	PANEL ASSY FRONT	345W248120
280 S		nsp	PANEL ASSY FRONT	345W248180
283 BLACK		9965 000 11765	DOOR CASE TRAY	345W063010
283 GOLD		9965 000 11769	DOOR CASE TRAY	345W063110
300 U		nsp	MAINS CORD	*YC000450R
300 S, N		9965 000 11766	MAINS CORD	*YC000660R
300 F		nsp	MAINS CORD	*YC000640R
332		nsp	PLATE MAIN GND	nsp
462		nsp	SCREW,DRAWING +3 D4.0 L10.0	nsp
463		nsp	SCREW,DRAWING +2 D3.0 L8.0	nsp
465		nsp	SCREW SPECIAL (3X10 B.K)	nsp
467		nsp	SCREW SPECIAL (3X8 BK.)	nsp

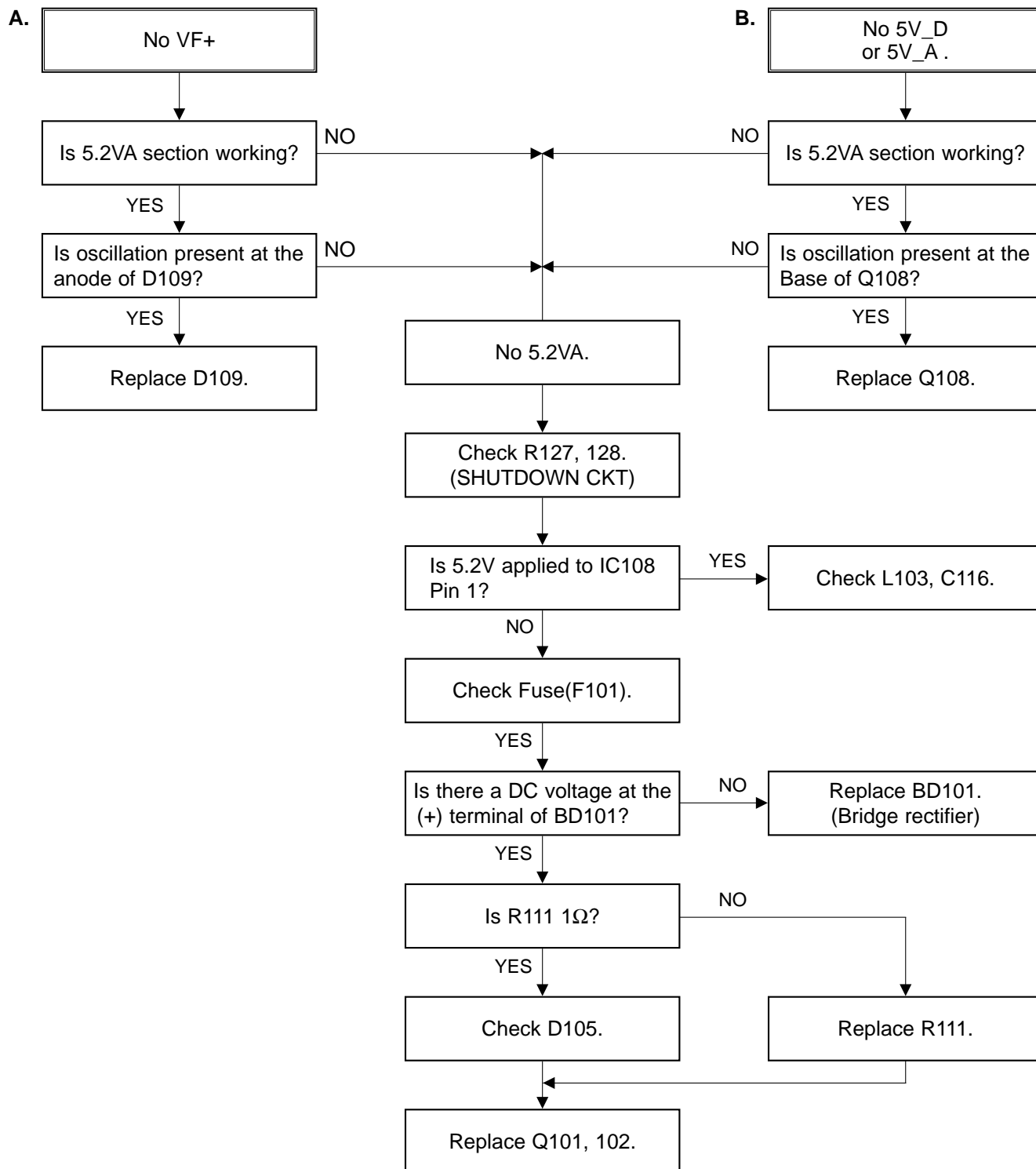
NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
801 U		nsp	USER GUIDE	345W851250
801 S		nsp	USER GUIDE	345W851350
801 N1B		9965 000 11767	USER GUIDE	345W851310
801 F		nsp	USER GUIDE	345W851110
801 N1G		9965 000 11767	USER GUIDE	345W851310
802 F		nsp	BOX CARTON	nsp
802 S, N, U		nsp	BOX CARTON	nsp
803		nsp	PACKING	nsp
804		nsp	PACKING SHEET	nsp
808		nsp	BATTERY AAA(R03)	nsp
811		nsp	VIDEO CORD (YL)	nsp
812		nsp	AUDIO CORD (RD/WH)	nsp
813		nsp	REMOTE CORD (OR)	nsp
900		9965 000 11313	REMOTE CONTROLLER RC4200	ZK344W0010

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

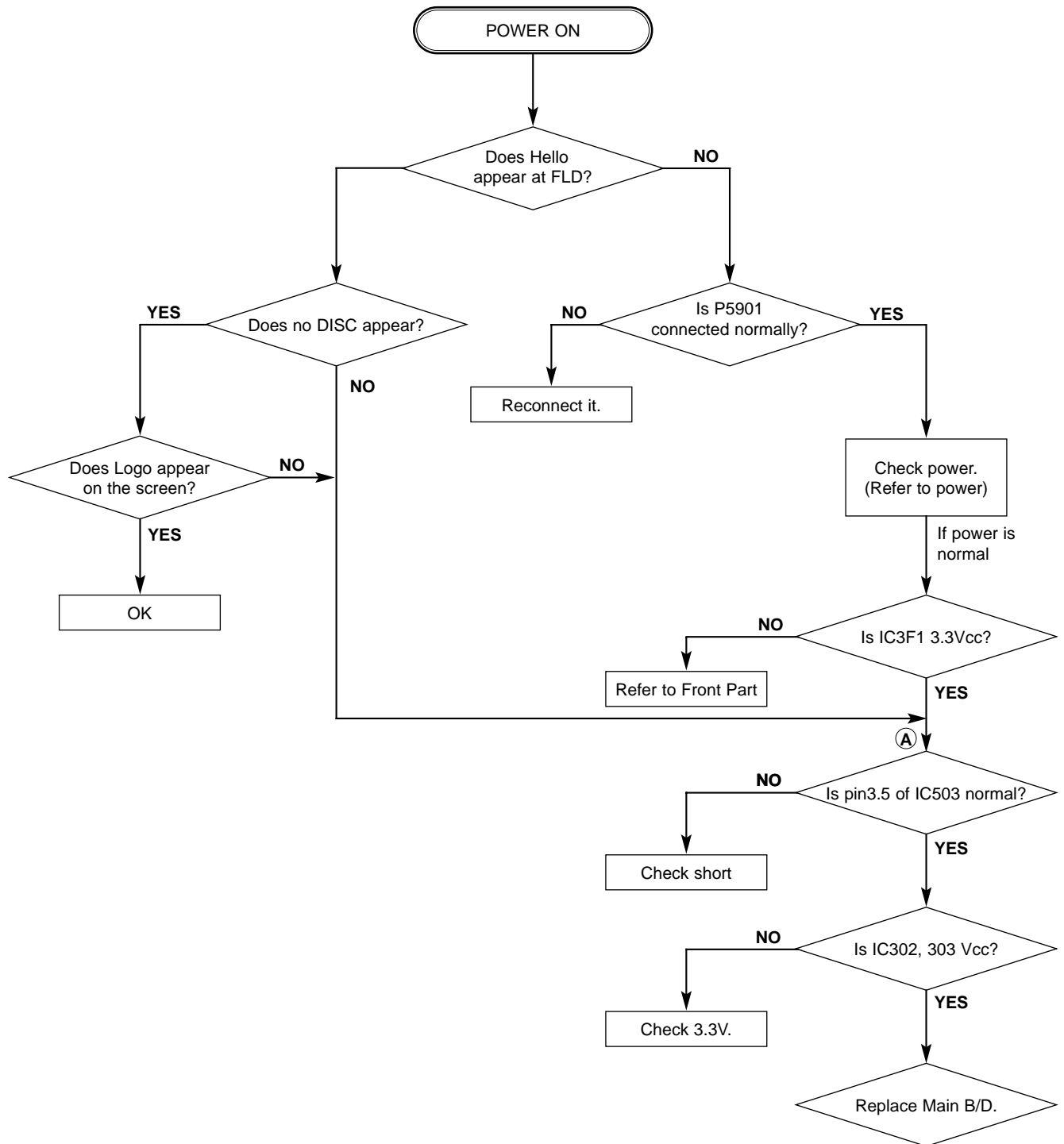
9. ELECTRICAL TROUBLESHOOTING GUIDE

9.1 Power (SMPS) Circuit

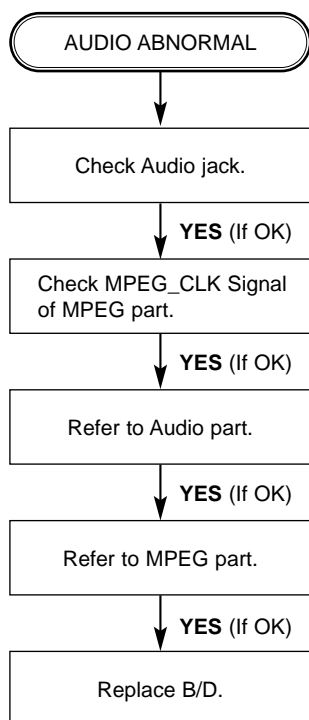


9.2 μ -COM Circuit

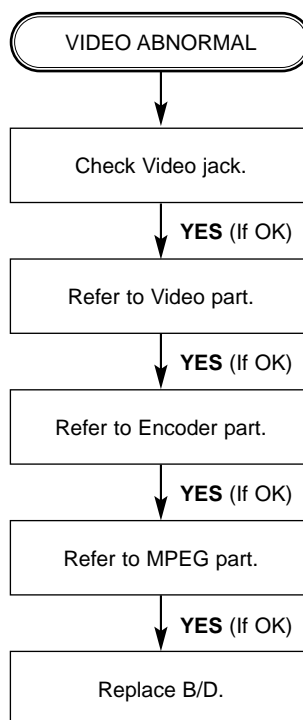
A. No Power



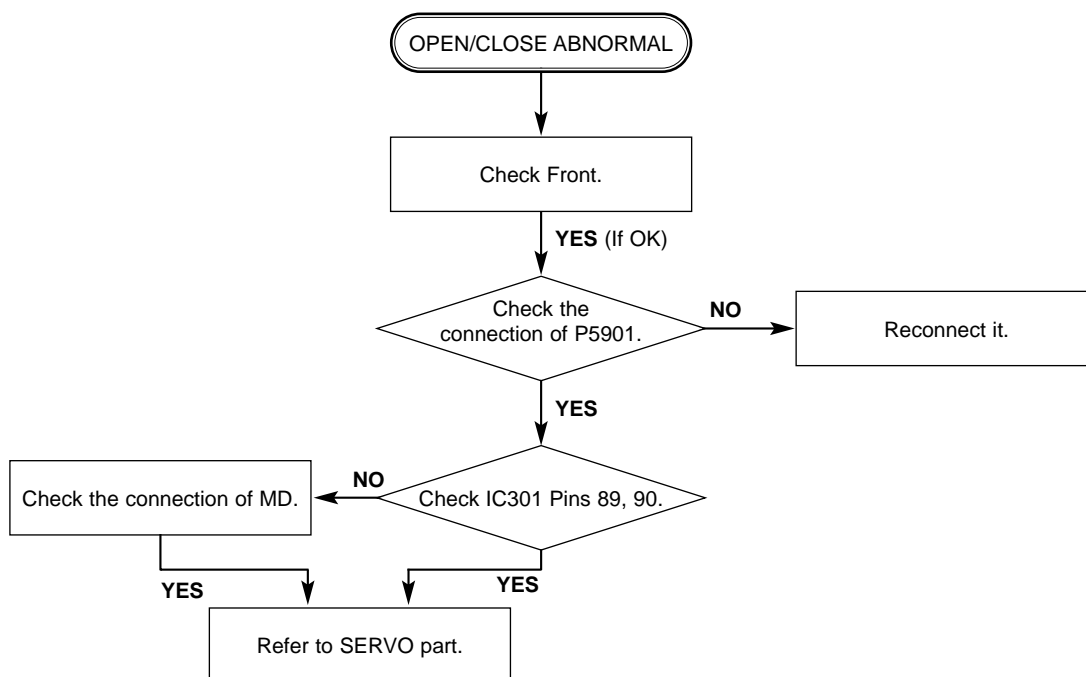
B. Audio abnormal



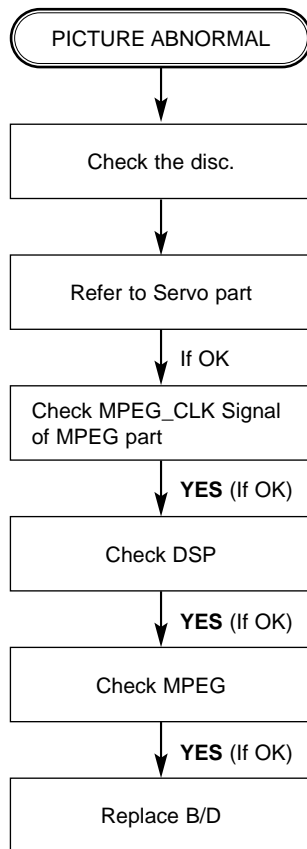
C. Video abnormal



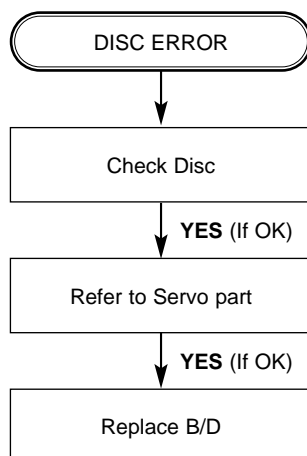
D. Open/Close abnormal



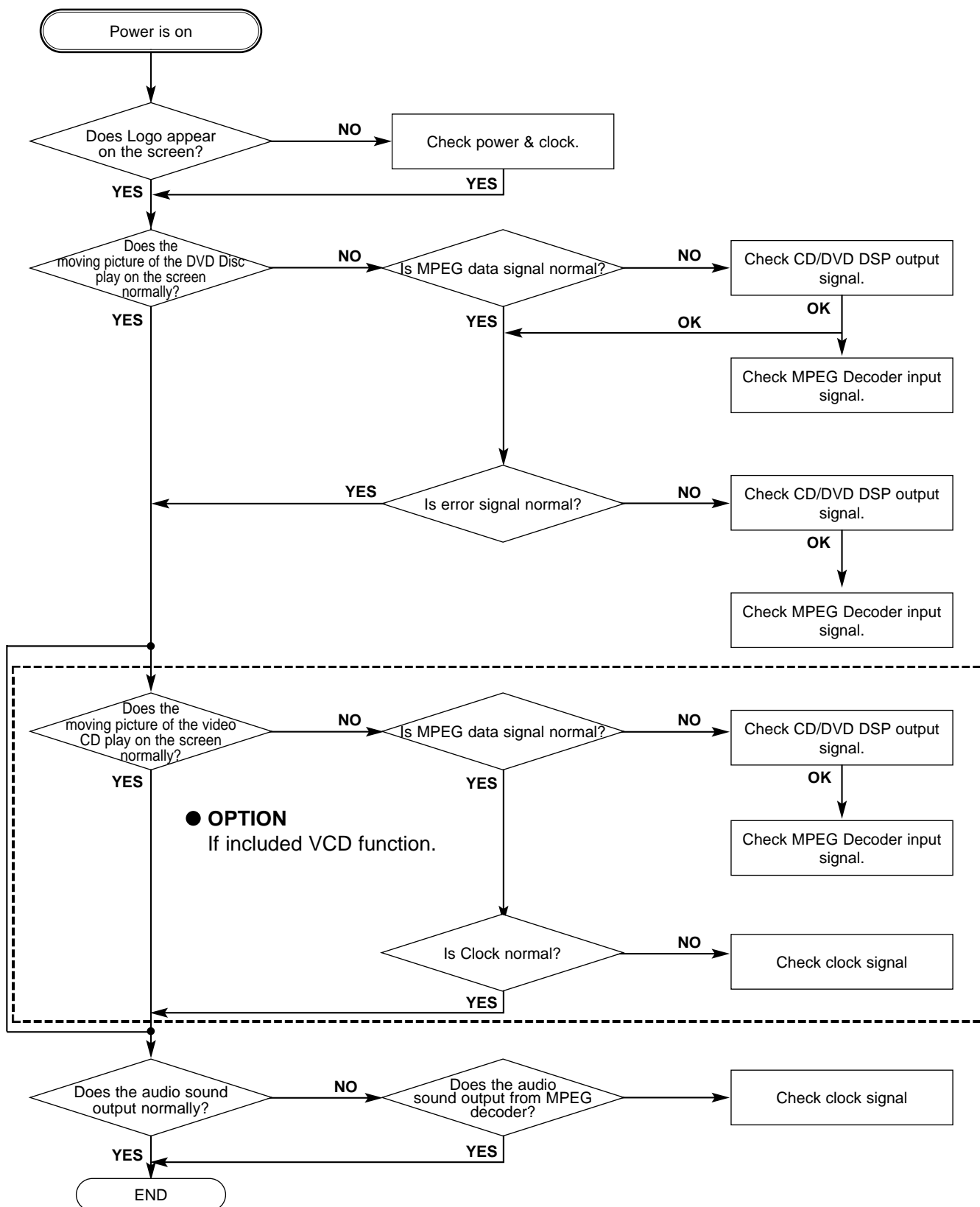
E. Picture abnormal



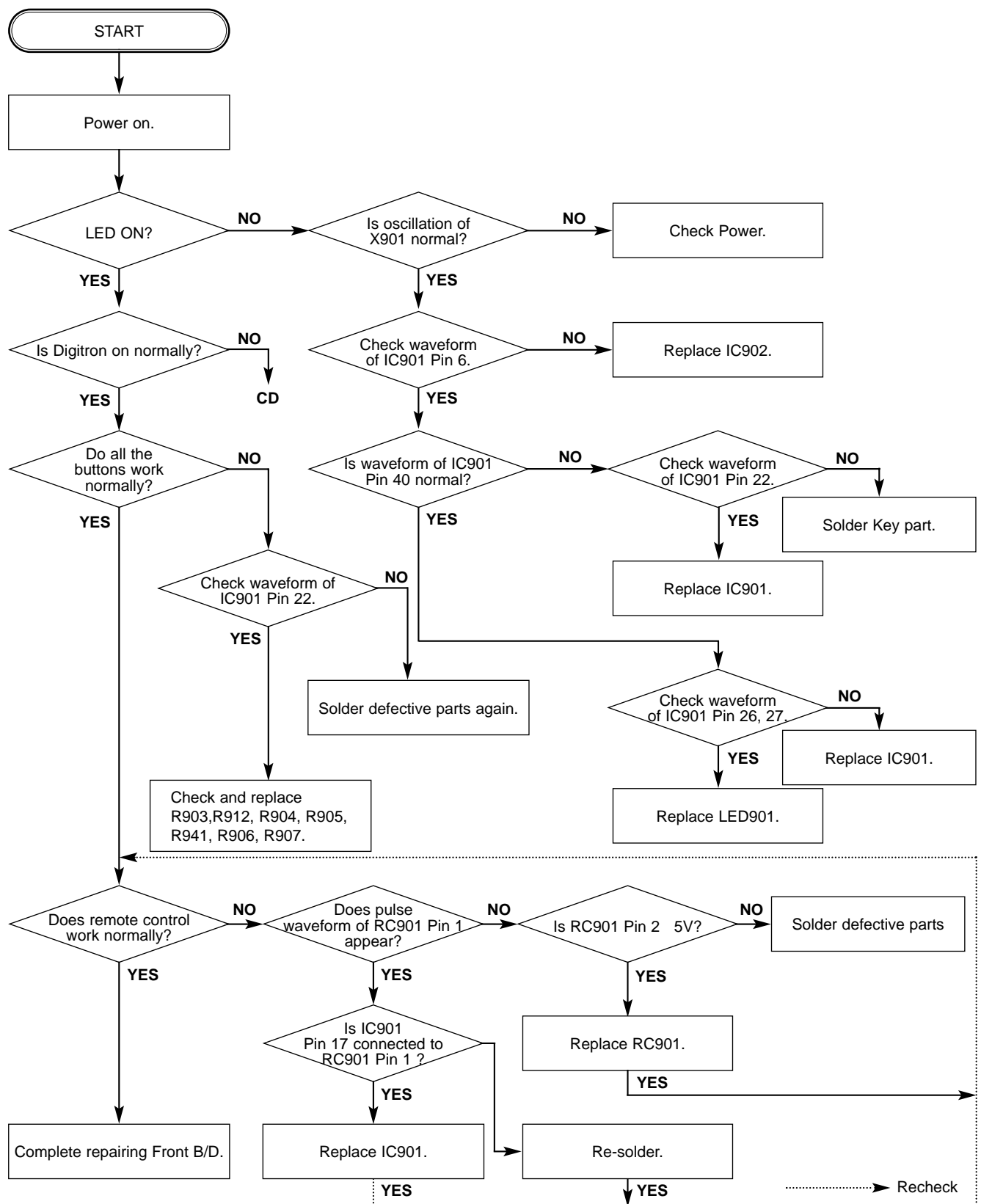
F. Disc Error



9.3 MPEG Circuit

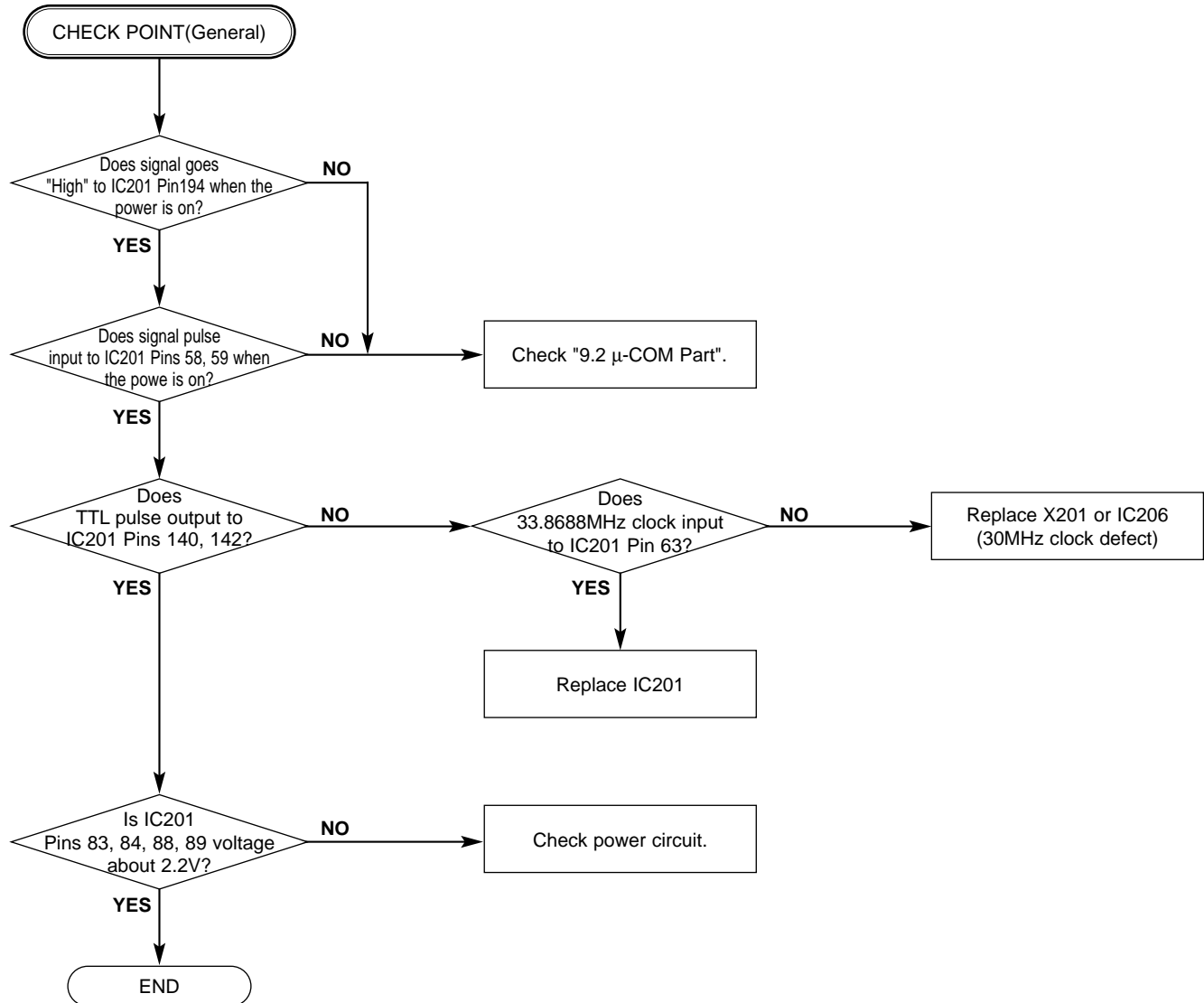


9.4 Front Circuit (Digitron & key)

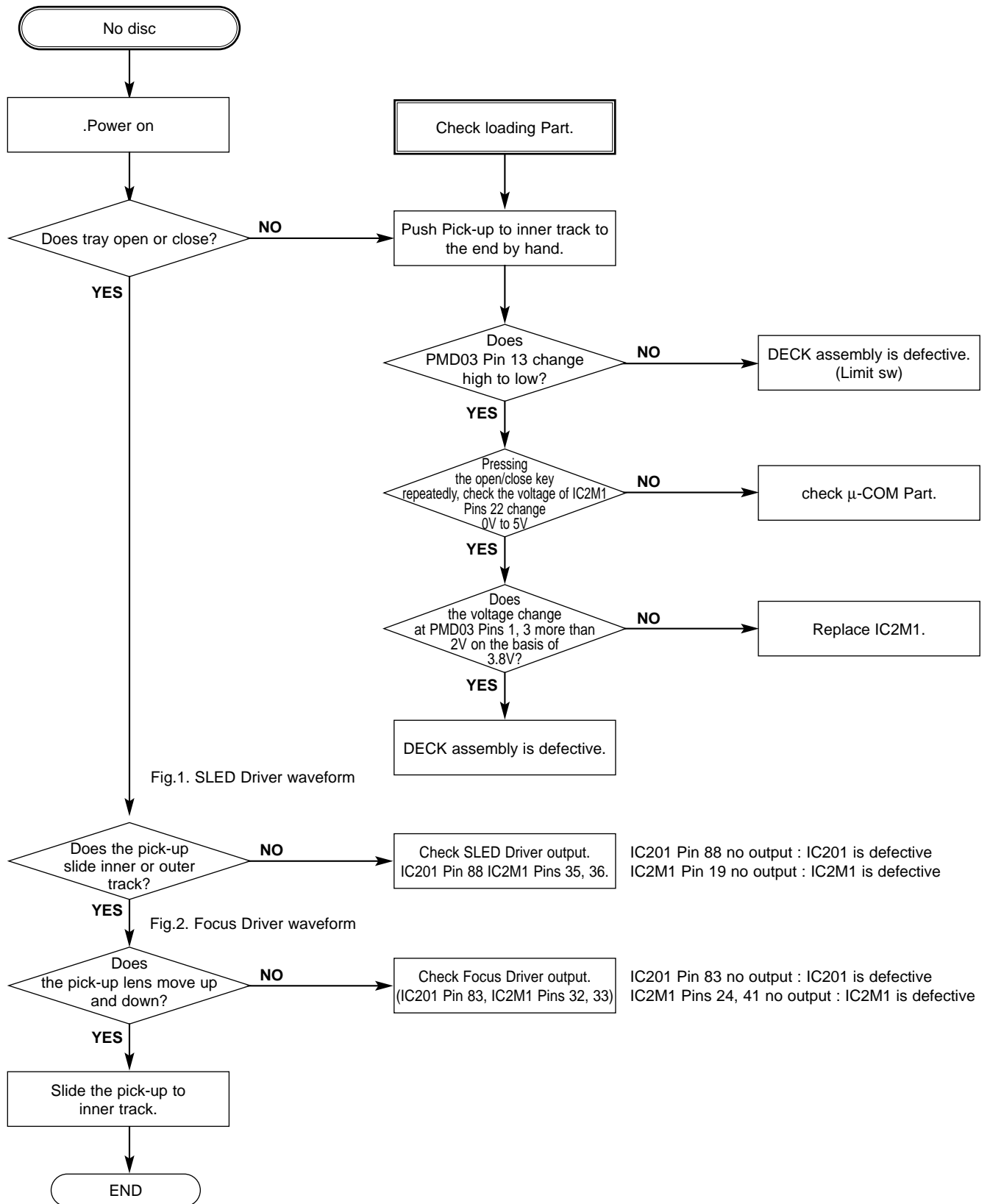


9.5 RF/Servo Circuit

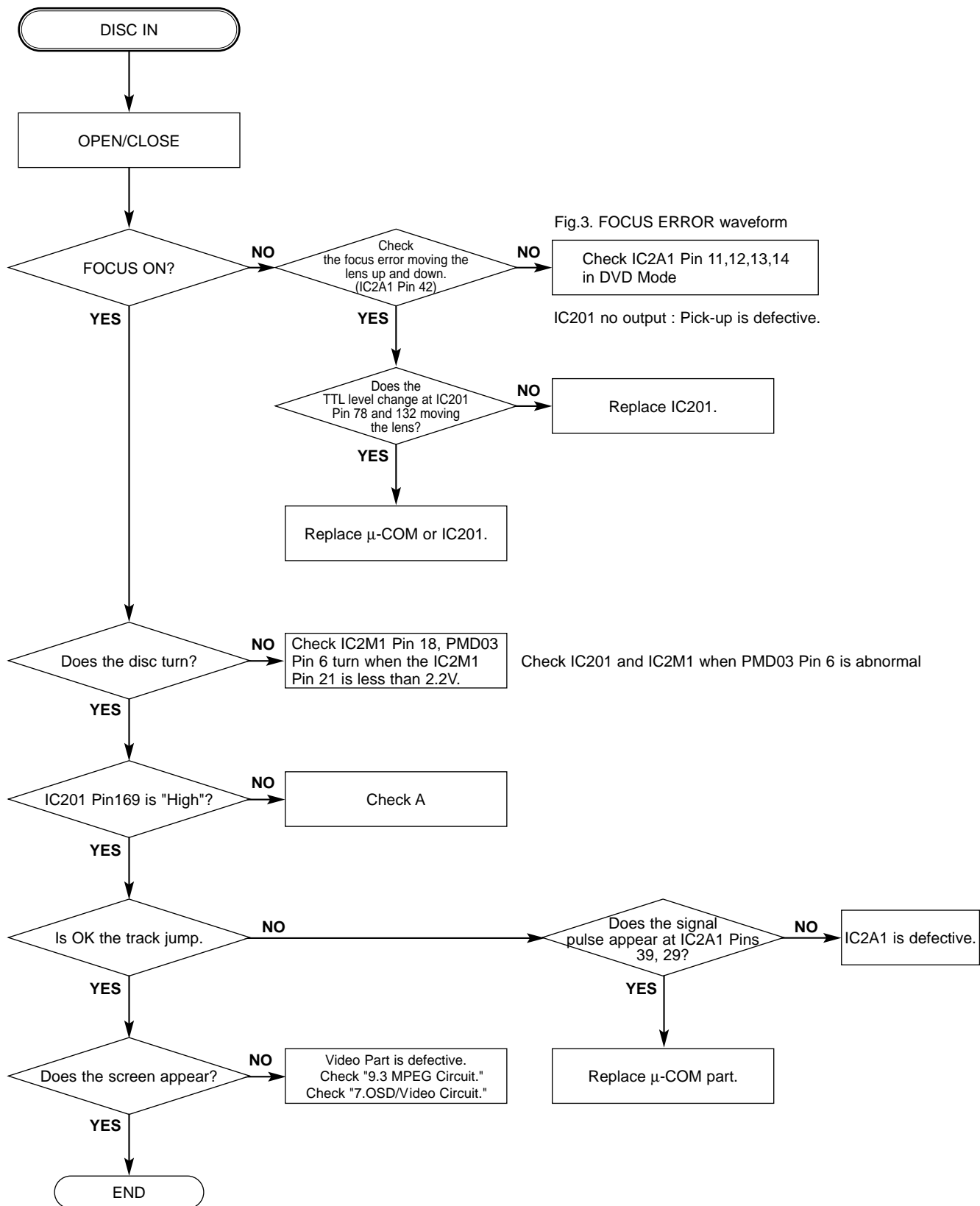
A.



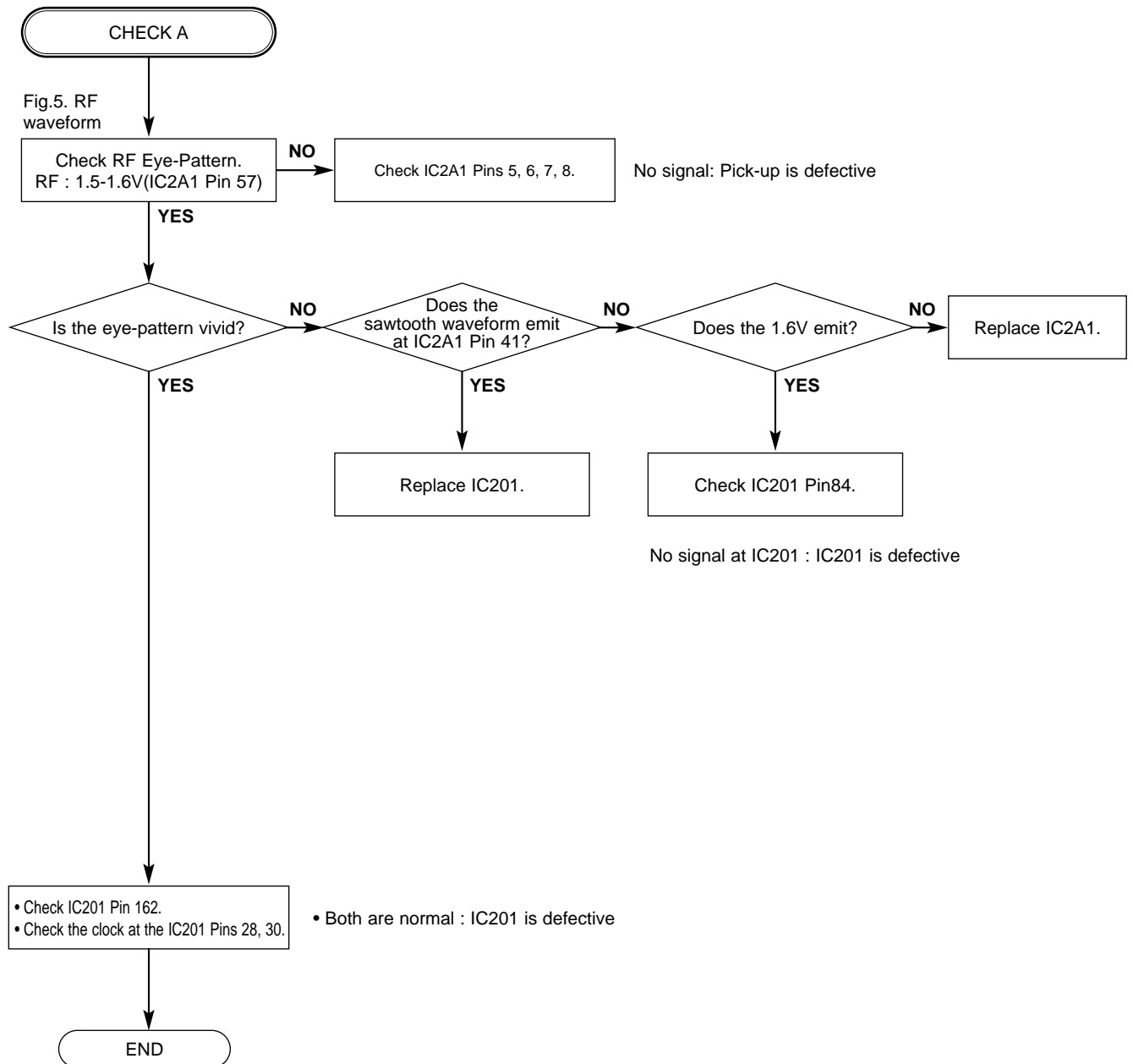
B.



C.



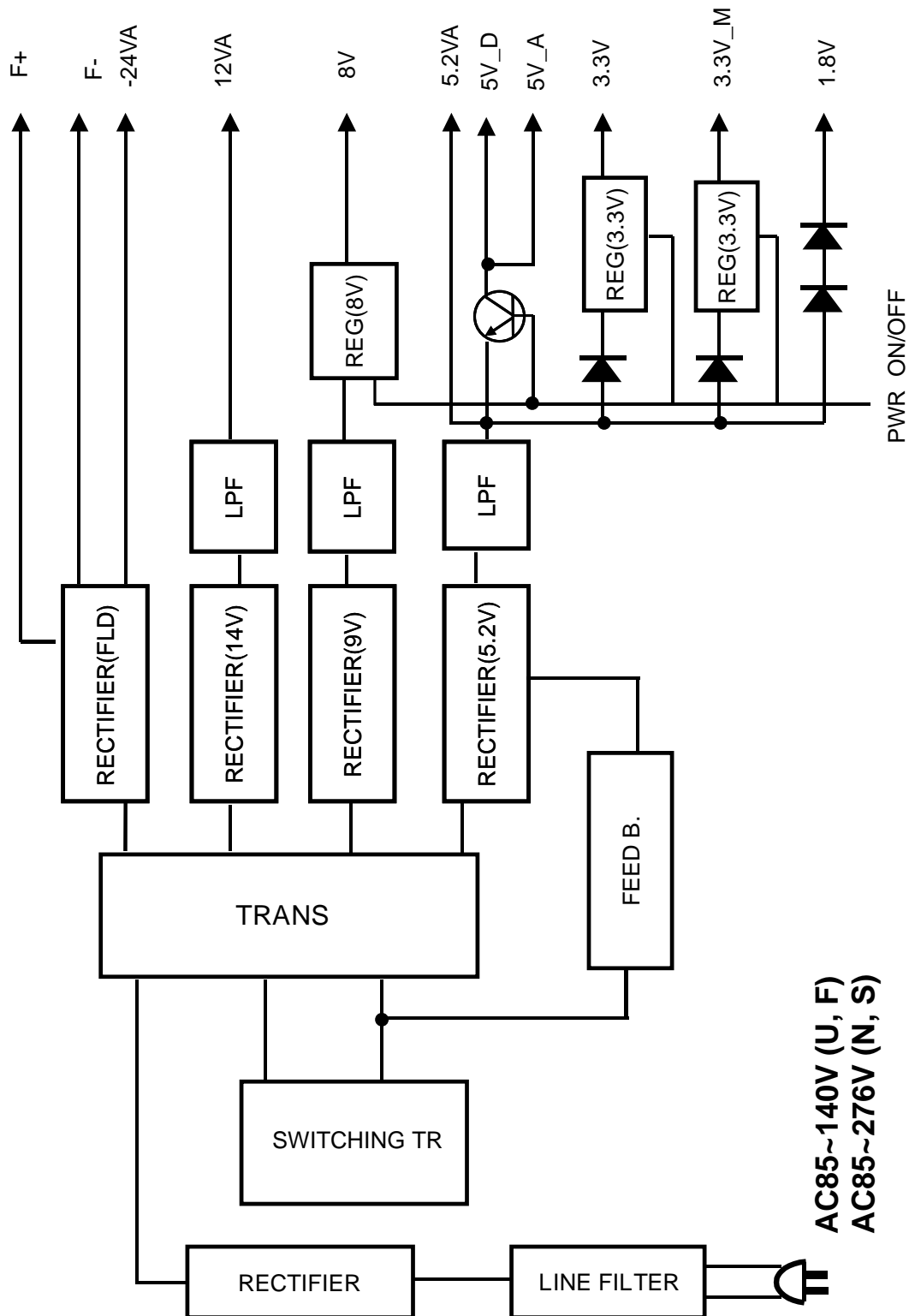
D.



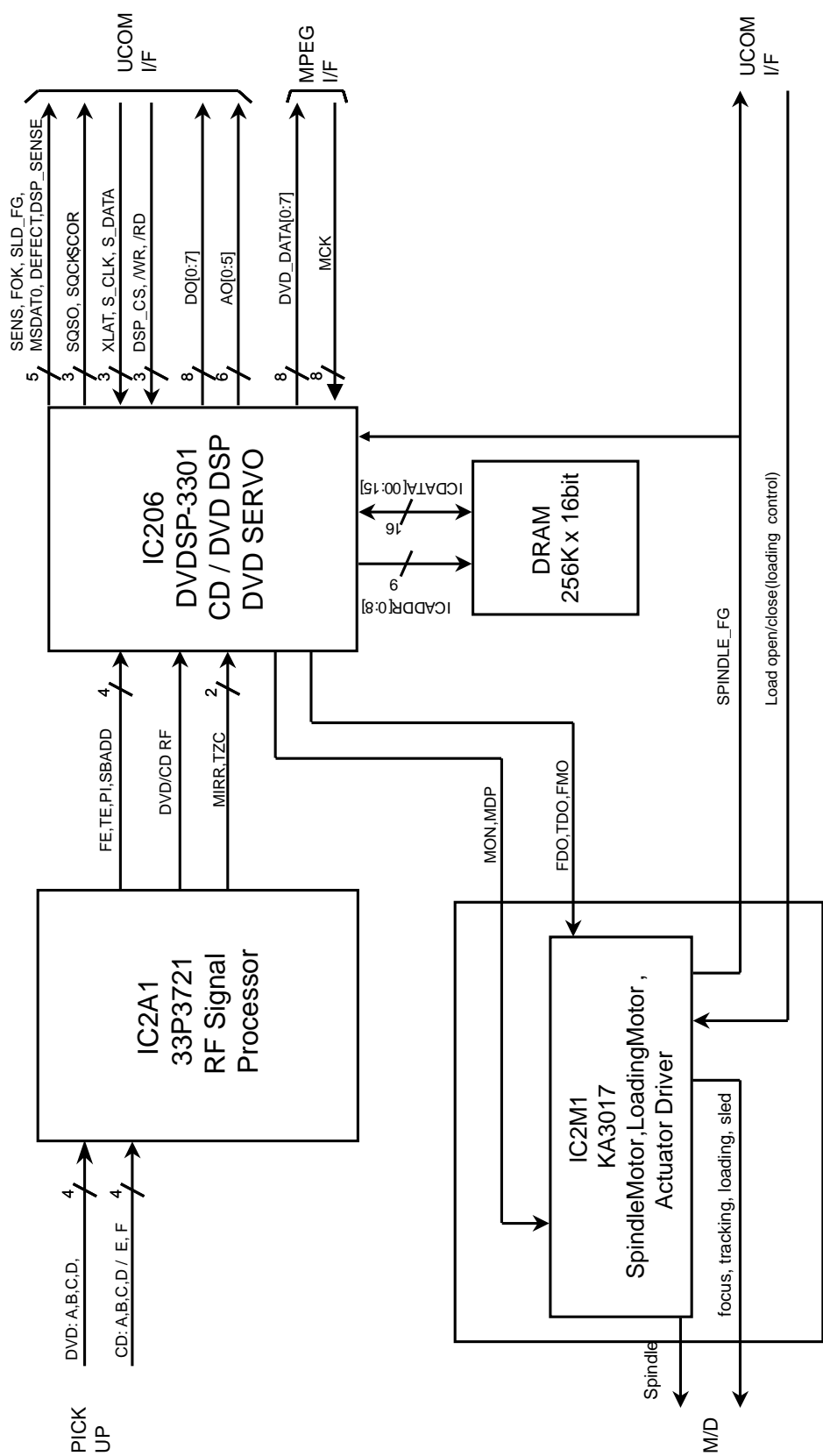
10.1 Overall Block Diagram



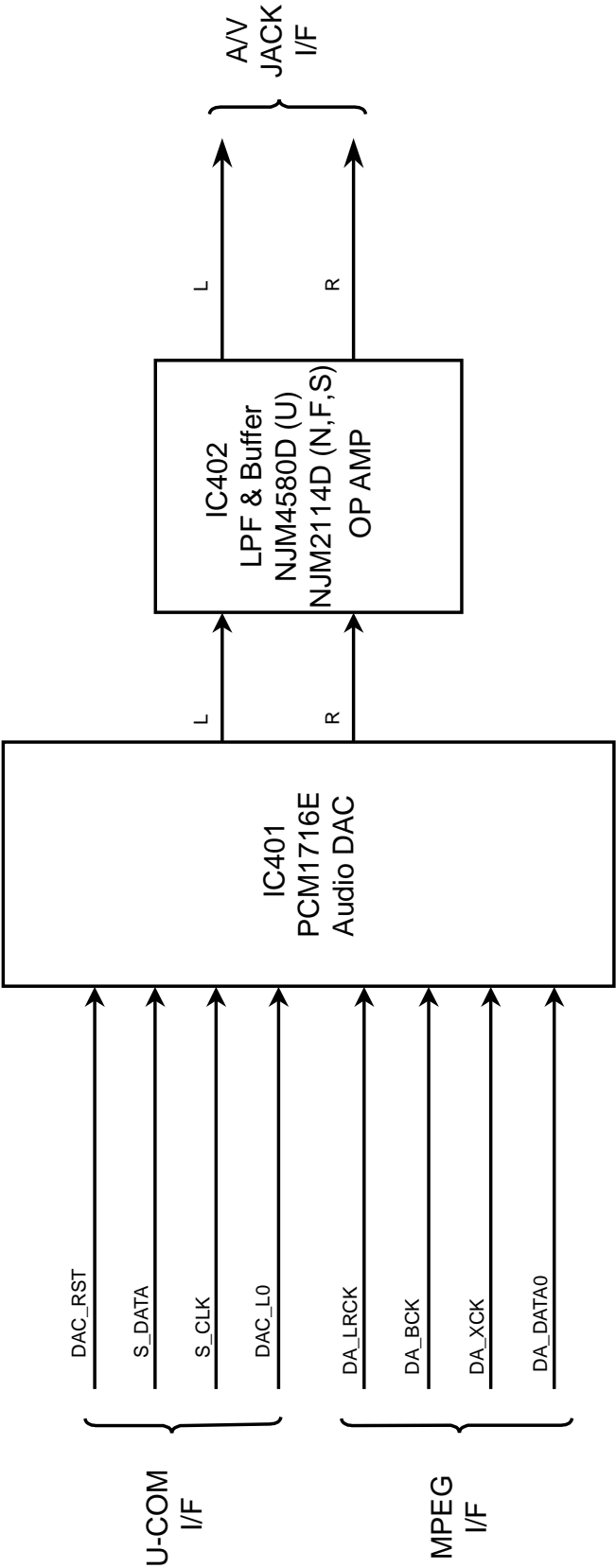
10.2 Power (SMPS) Block Diagram



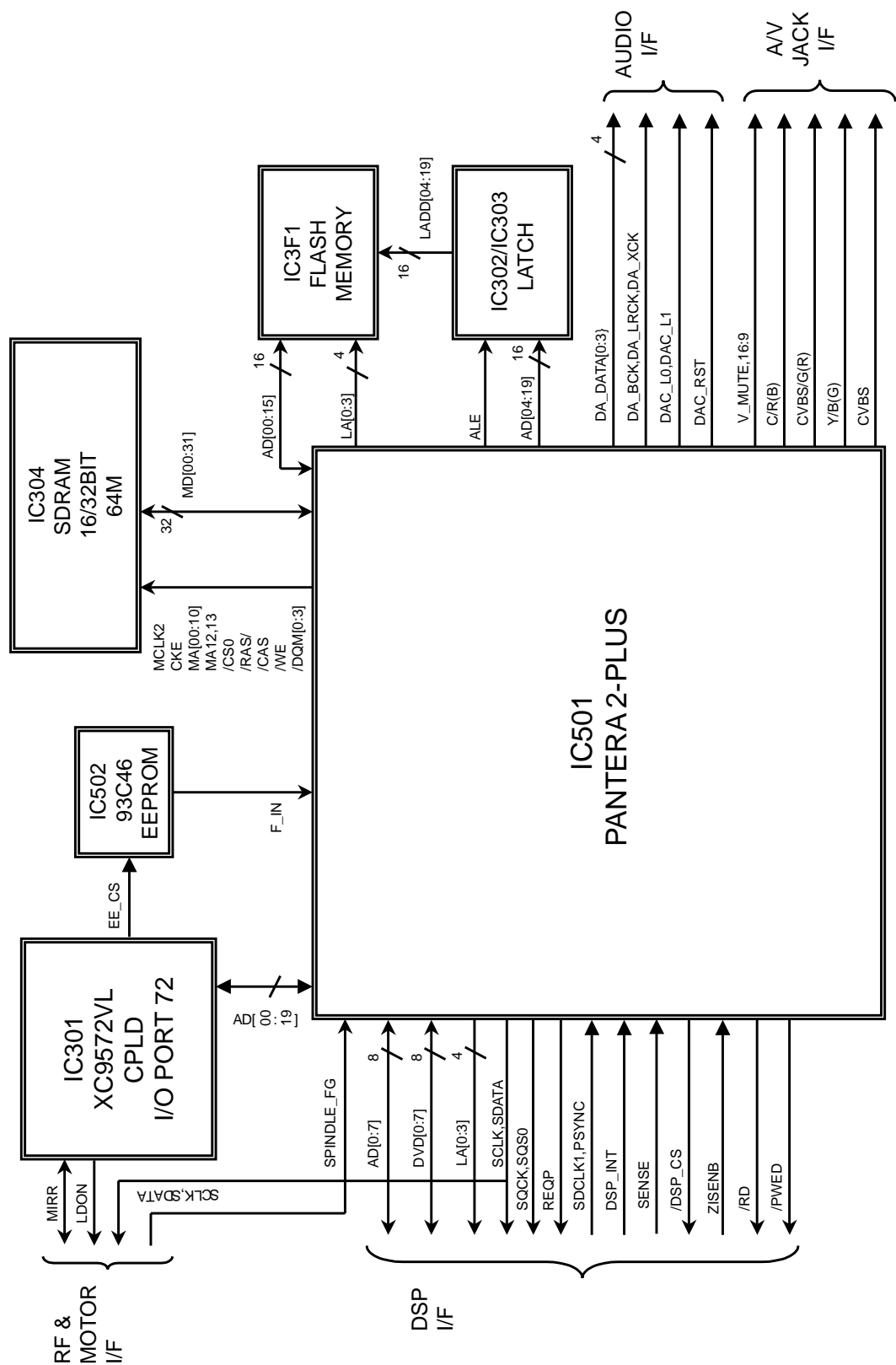
10.3 RF/CD DSP/DVD DSP/DVD SERVO Block Diagram



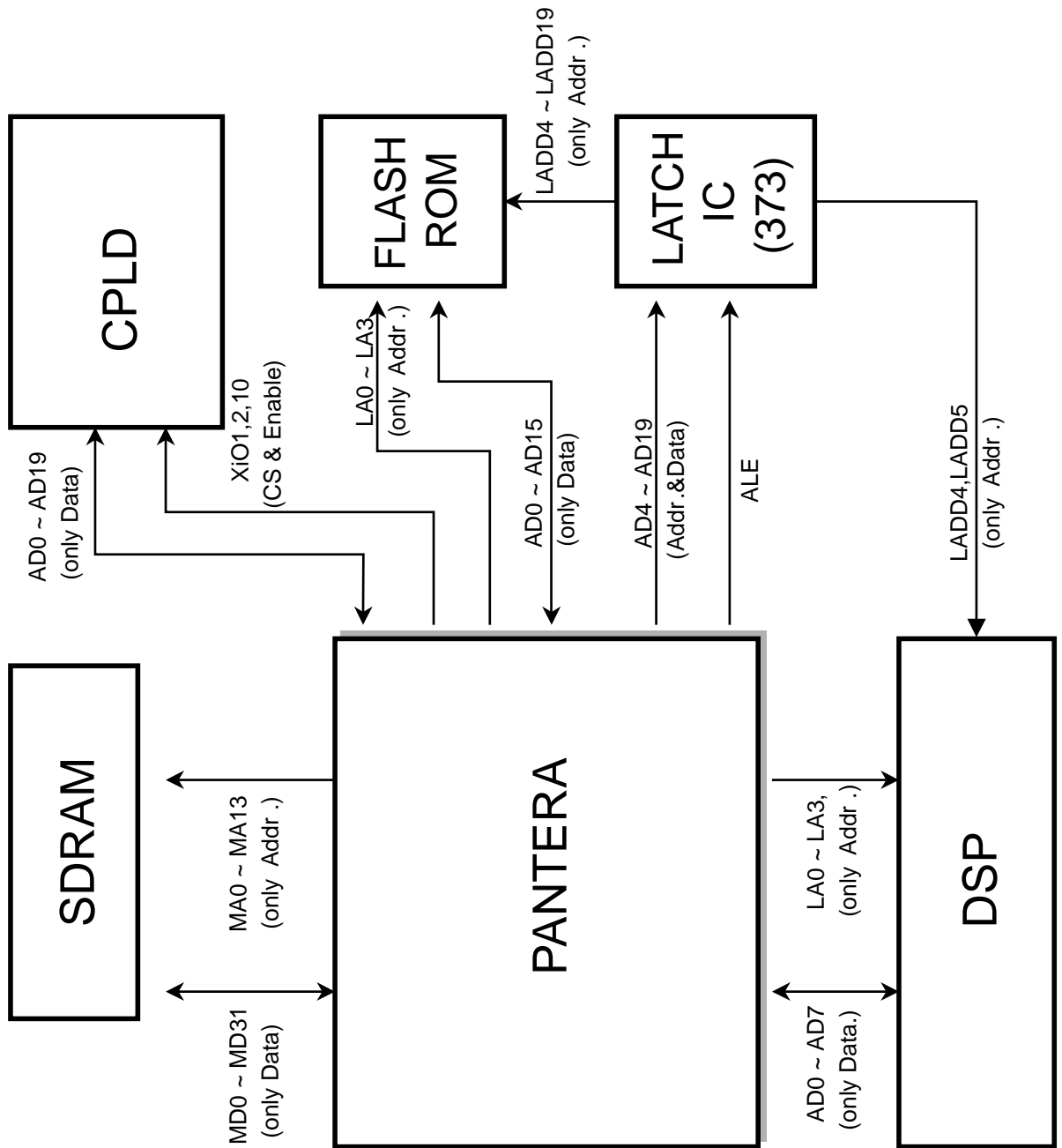
10.4 Audio Block Diagram



10.5 MPEG & MEMORY Block Diagram



10.6 MPEG & MEMORY μ -COM Block Diagram



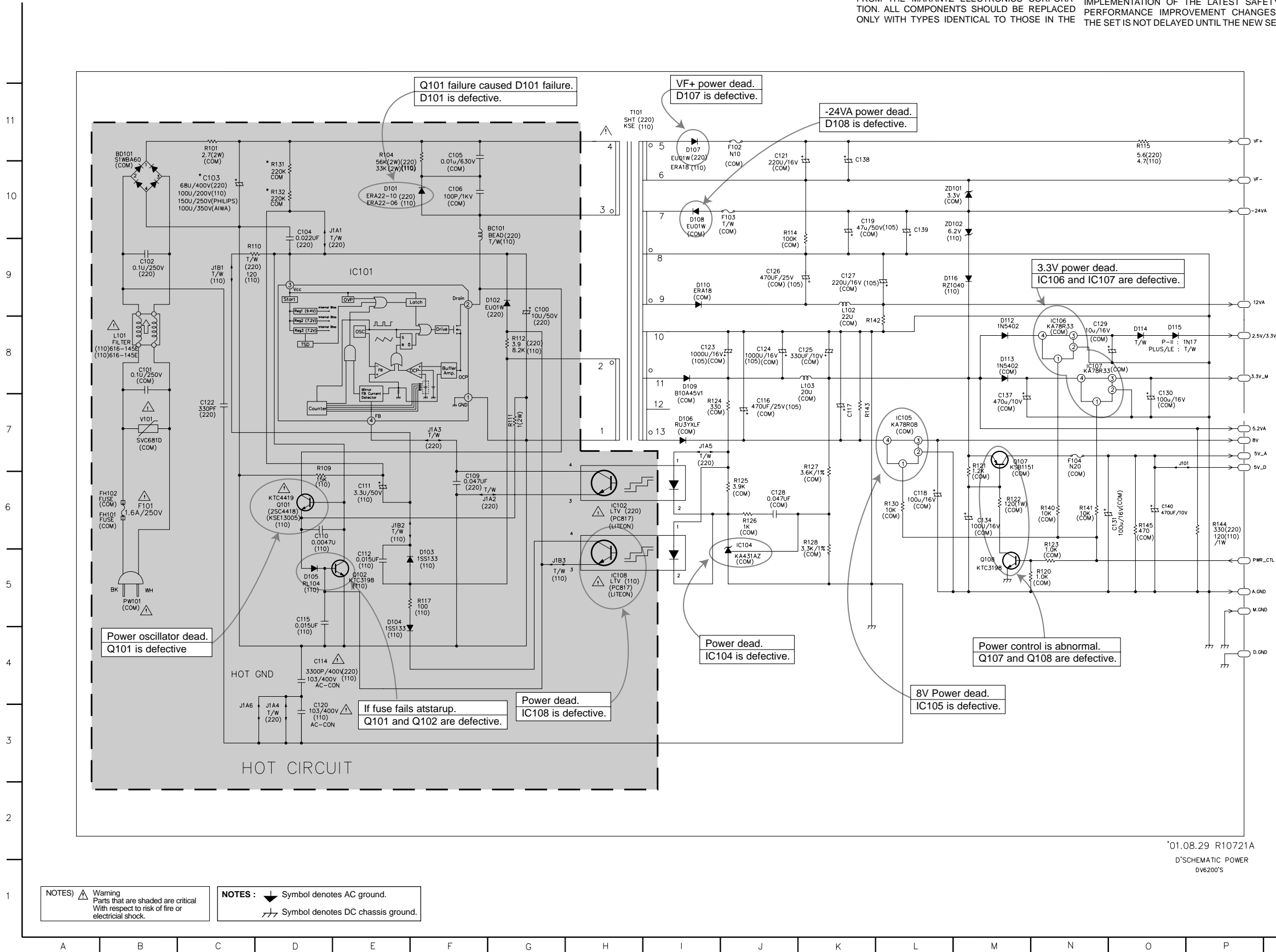
11. CIRCUIT DIAGRAMS
11.1 POWER (SMPS) CIRCUIT DIAGRAM

IMPORTANT SAFETY NOTICE
WHEN SERVICING THIS CHASSIS, UNDER NO CIRCUMSTANCES SHOULD THE ORIGINAL DESIGN BE MODIFIED OR ALTERED WITHOUT PERMISSION FROM THE MARANTZ ELECTRONICS CORPORATION. ALL COMPONENTS SHOULD BE REPLACED ONLY WITH TYPES IDENTICAL TO THOSE IN THE ORIGINAL CIRCUIT. SPECIAL COMPONENTS ARE SHADED ON THE SCHEMATIC FOR EASY IDENTIFICATION. THIS CIRCUIT DIAGRAM MAY OCCASIONALLY DIFFER FROM THE ACTUAL CIRCUIT USED. THIS WAY, IMPLEMENTATION OF THE LATEST SAFETY AND PERFORMANCE IMPROVEMENT CHANGES INTO THE SET IS NOT DELAYED UNTIL THE NEW SERVICE LITERATURE IS PRINTED.

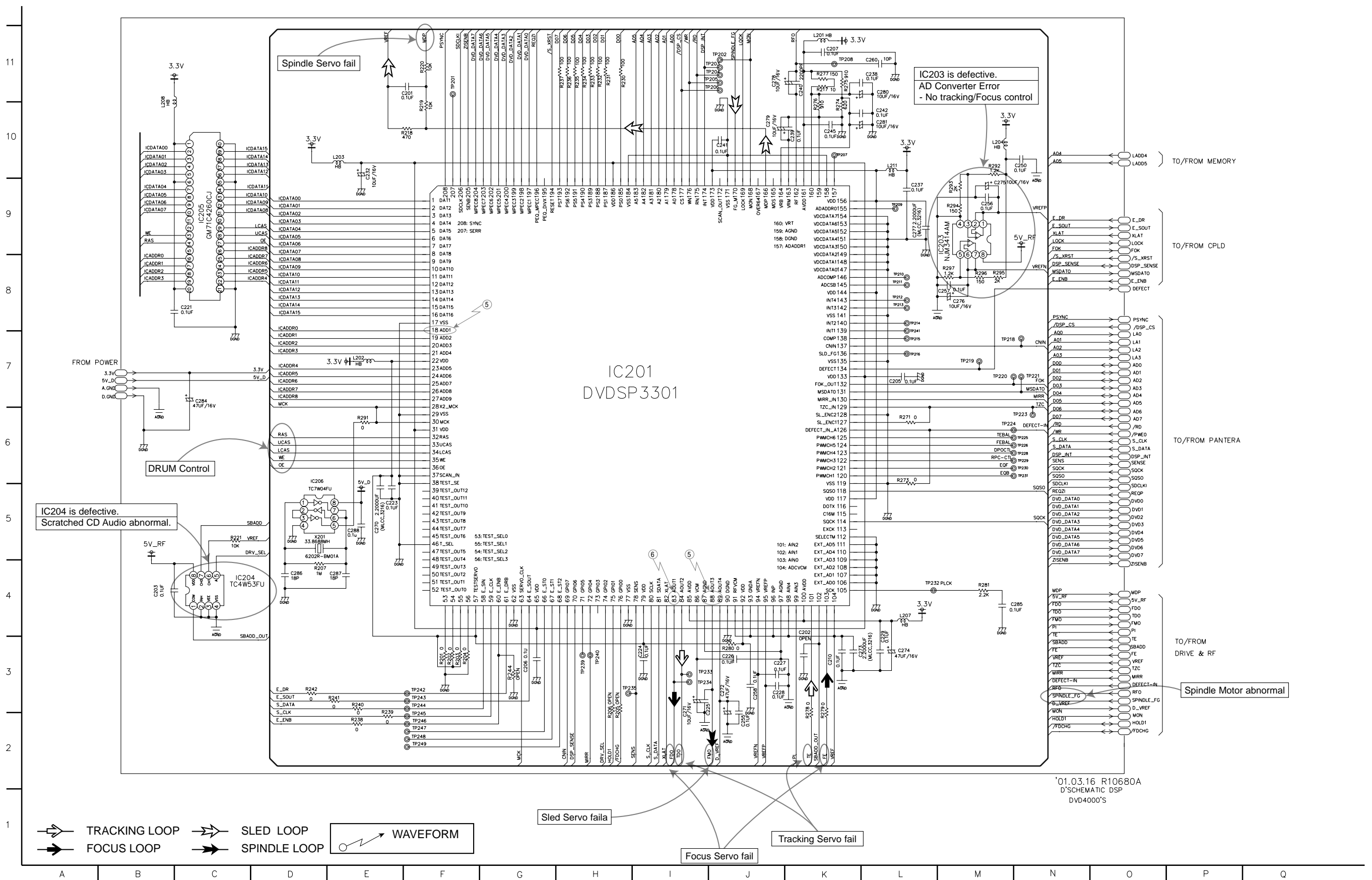
NOTE :
1. Shaded(■) parts are critical for safety. Replace only with specified part number.
2. Voltages are DC-measured with a digital voltmeter during Play mode.

LOCATION GUIDE

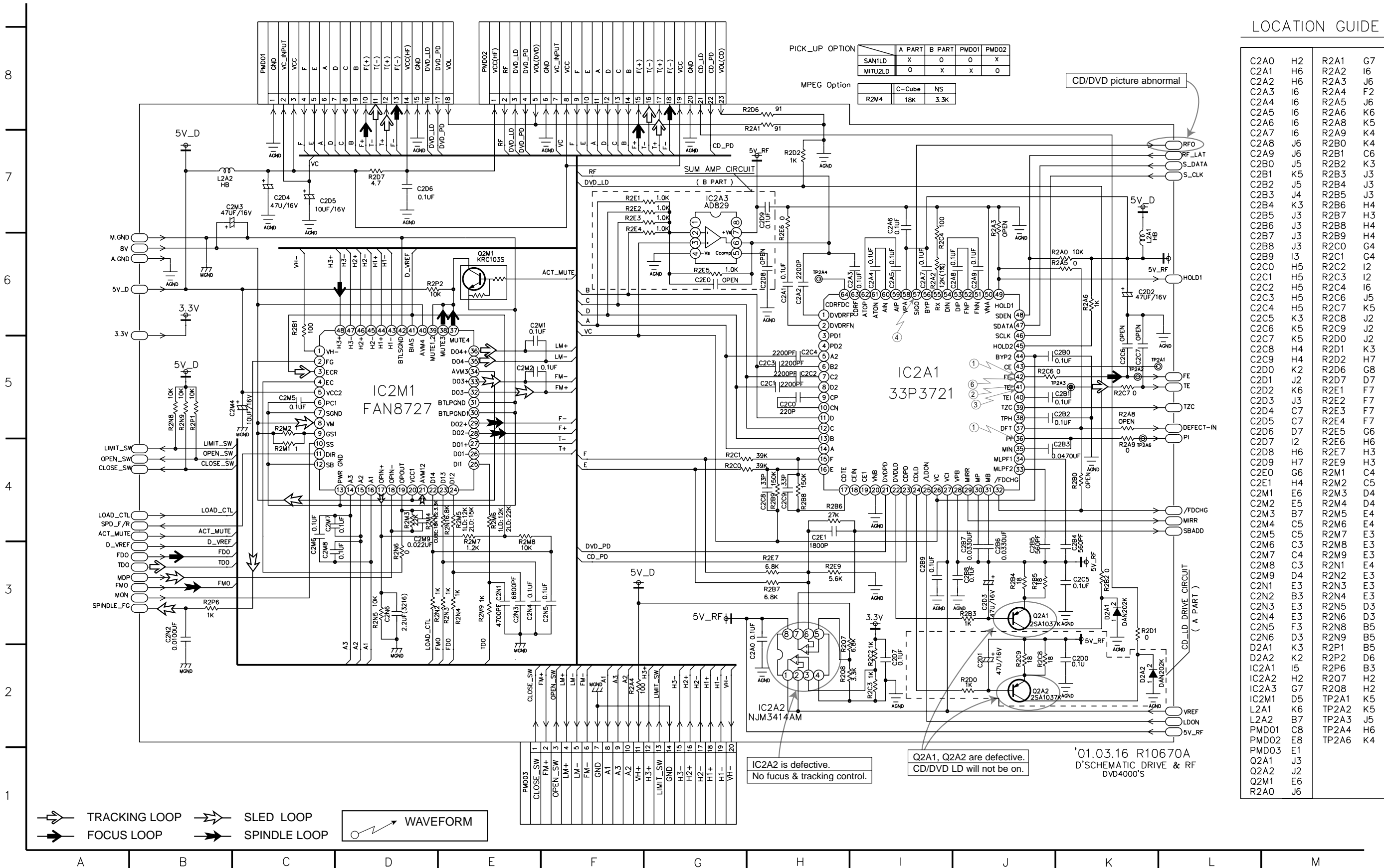
A.GND	P5	R142	K8
BC101	G10	R143	K7
BD101	B11	R144	P6
C100	G9	R145	O6
C101	B8	T101	H11
C102	B9	V101	B7
C103	C10	VF+	P11
C104	D10	VF-	P10
C105	F11	ZD101	L10
C106	F10	ZD102	L10
C109	F6		
C110	D6		
C111	E6		
C112	E5		
C114	D4		
C115	D5		
C116	J7		
C117	K7		
C118	L6		
C119	K10		
C120	D3		
C121	J11		
C122	C7		
C123	I8		
C124	J8		
C125	K8		
C126	J9		
C127	K9		
C128	J6		
C129	N8		
C130	O7		
C131	O6		
C134	M6		
C137	M7		
C138	K10		
C139	L10		
C140	O6		
D.GND	P4		
D101	E10		
D102	F9		
D103	F5		
D104	E5		
D105	D5		
D106	I7		
D107	I11		
D108	I10		
D109	I8		
D110	I9		
D112	M8		
D113	M8		
D114	O8		
D115	O8		
D116	L9		
F102	J11		
F103	J10		
F104	N7		
FH101	B6		
FH102	B6		
IC101	E9		
IC102	H6		
IC104	J6		
IC105	L7		
IC106	N8		
IC107	N8		
IC108	H5		
J101	O7		
J1A1	D10		
J1A2	F6		
J1A3	F7		
J1A4	D3		
J1A5	I7		
J1A6	C3		
J1B1	C9		
J1B2	E6		
J1B3	G5		
L101	B8		
L102	K9		
L103	K8		
M.GND	P5		
PW101	B5		
PWR_CTLP5			
Q101	D6		
Q102	E5		
Q107	M7		
Q108	M5		
R101	C11		
R104	E11		
R109	D7		
R110	C9		
R111	G7		
R112	O8		
R114	J10		
R115	O11		
R117	F5		
R120	N5		
R121	M7		
R122	M6		
R123	N6		
R124	I7		
R125	J6		
R126	J6		
R127	K7		
R128	K6		
R130	L6		
R131	D10		
R132	D10		
R140	N6		
R141	N6		

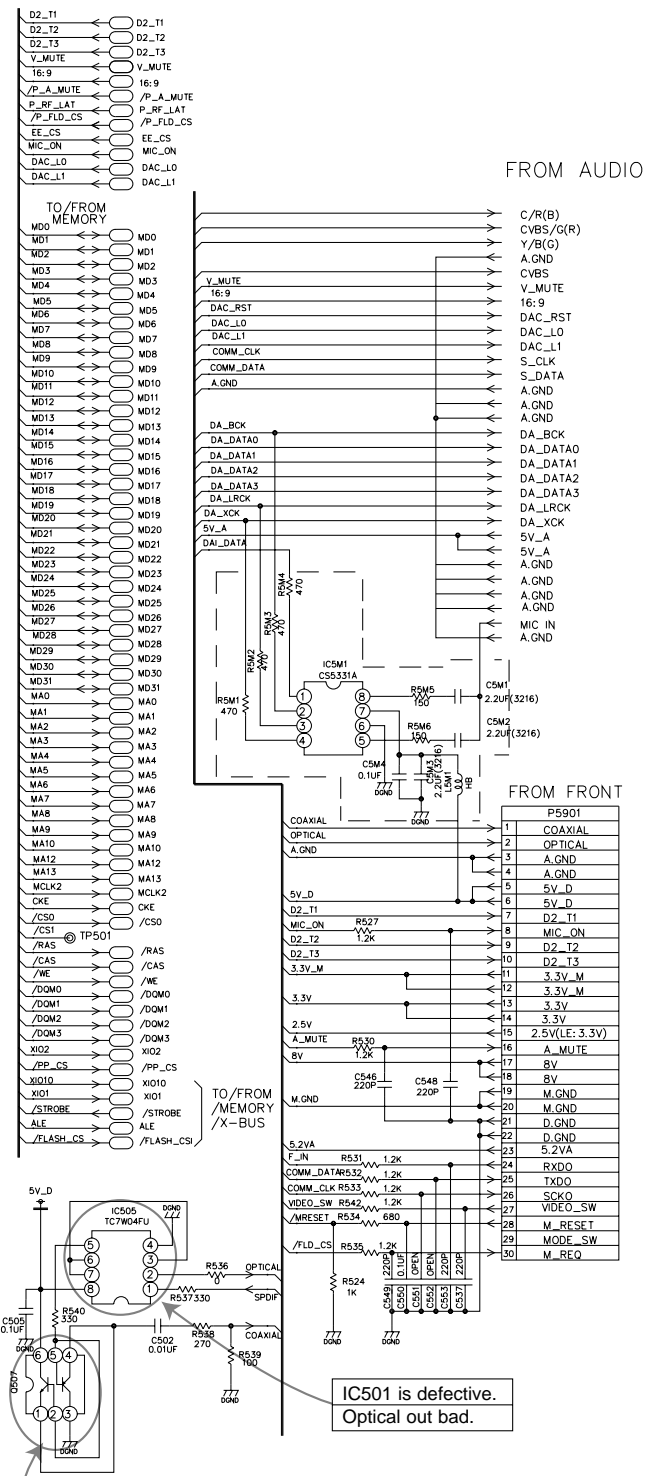


11.2 DVD DSP CIRCUIT DIAGRAM



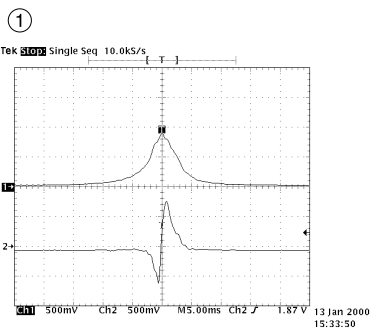
11.3 DRIVE & RF CIRCUIT DIAGRAM



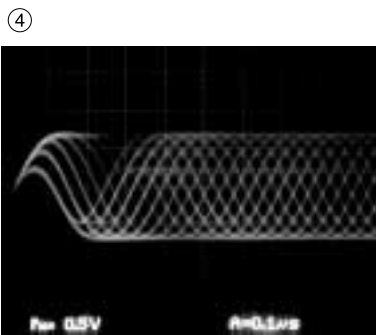


C501	D10	R533	O3
C502	N2	R534	O3
C503	D10	R535	O3
C504	C11	R536	N3
C505	M3	R537	N3
C506	C11	R538	N2
C507	I11	R539	N2
C508	L3	R540	M3
C509	L4	R541	L4
C510	L4	R542	O3
C511	L5	R550	G11
C512	L6	R588	E11
C513	L7	R589	E11
C514	L7	R590	F11
C515	B5	R591	F11
C516	L9	R597	F3
C517	J11	R5M1	N7
C518	I11	R5M2	N7
C519	I11	R5M3	N7
C520	H11	R5M4	O8
C521	G11	R5M5	O7
C522	G10	R5M6	O7
C523	D11	TP501	M5
C524	B	TP506	E10
C526	D7	TP509	H11
C527	D6	TP510	F2
C528	D6	TP511	F3
C529	D5	TP512	F2
C530	D3	TP513	F2
C531	F3	TP514	F2
C532	F3	TP515	F2
C533	H3	TP516	G2
C534	H3	TP517	G3
C535	I3	TP518	G3
C536	J3	TP519	G3
C537	P3	TP520	G3
C538	D10	TP521	G3
C539	E10	TP522	G3
C540	F11	TP523	G3
C541	I11	TP524	H2
C542	L11	TP525	H2
C543	F10	TP526	H2
C544	L10	TP527	H2
C546	O4	TP528	H2
C548	O4	TP529	H2
C549	O3	TP530	H2
C550	O3	TP531	I2
C551	O3	TP532	I2
C552	P3	TP533	I2
C553	P3	TP534	I2
C554	C9	TP535	I3
C555	C9	TP536	I2
C556	C10	X501	G11
C5M1	P7	X101	F2
C5M2	P7	X101	M4
C5M3	P6	X101	N4
C5M4	O6	X1010	G2
IC501	G7	X1010	M4
IC502	K11	X1010	N4
IC503	L4	X102	F2
IC504	C9	X102	M4
IC505	M3	X102	N4
IC506	C10	X105	F2
IC5M1	O7	X105	A3
L501	D12	X105	B3
L502	C11	X106	A3
L503	C8	X106	B3
L504	C12	Z15ENB	H2
L505	L10	Z15ENB	A6
L506	I11	Z15ENB	B7
L5M1	P6		
Q507	M2		
Q501	B12		
R502	I1		
R503	B5		
R504	E10		
R505	F10		
R506	E10		
R507	D9		
R508	C9		
R509	C9		
R514	I1		
R515	I1		
R517	I11		
R518	I11		
R519	I11		
R520	J11		
R521	B8		
R522	J11		
R523	B8		
R524	O3		
R525	L6		
R527	O5		
R530	O4		
R531	O4		
R532	O4		

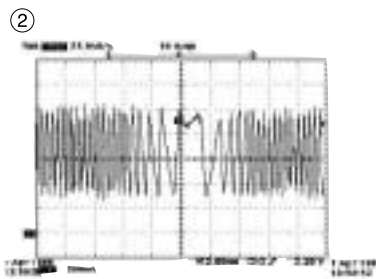
•WAVEFORMS



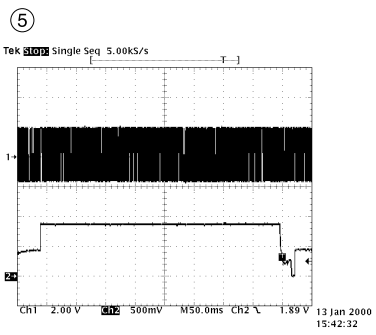
IC2A1 Pin 36, Pi
IC2A1 Pin 42, Focus Error



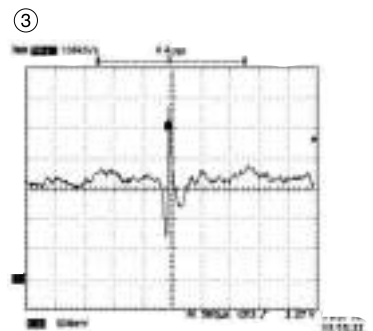
IC2A1 Pin 57,
RF



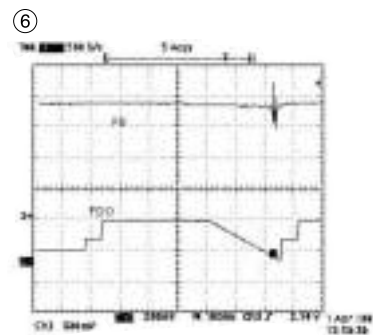
IC2A1 Pin 41
Tracking Error



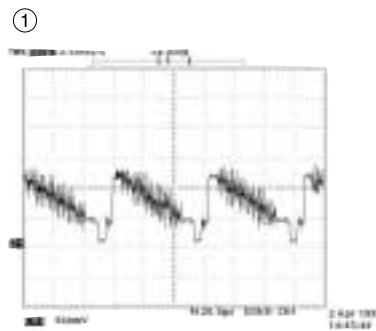
IC201 Pin 18, SLED FG
IC201 Pin 88, SLED Drive(FMO)



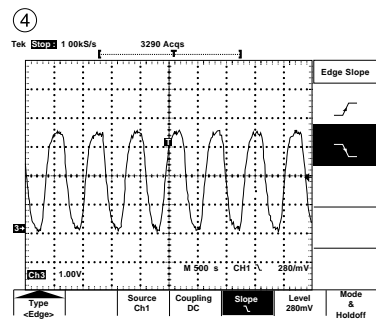
IC2A1 Pin 41
VBR TRACKING Error



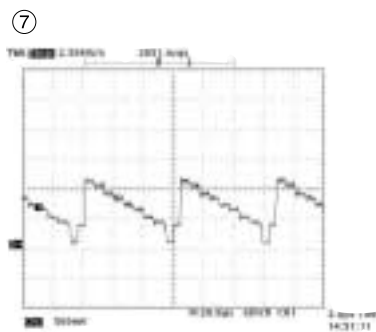
IC2A1 Pin42, Focus Error(in Focus Search)
IC201 Pin 83, Focus Drive(FDO)



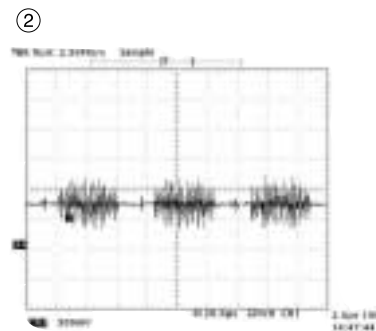
IC501 Pin 118, Composite



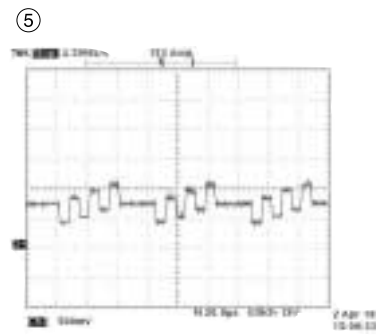
IC501 Pin 99,
MPEG Clock(27MHz)



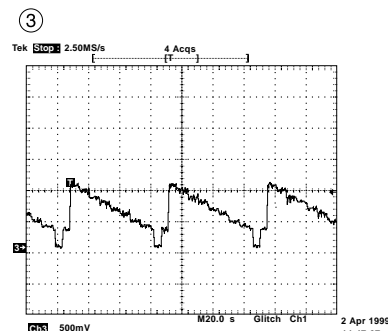
IC501 Pin 114
Component Y



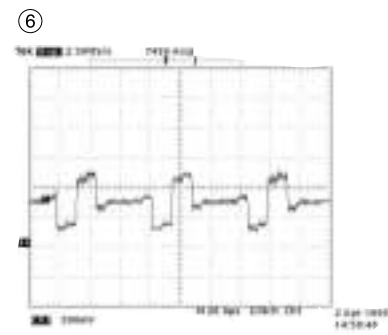
IC501 Pin 112, Chrominance
(Super video out Mode)



IC501 Pin 112
Component Pb

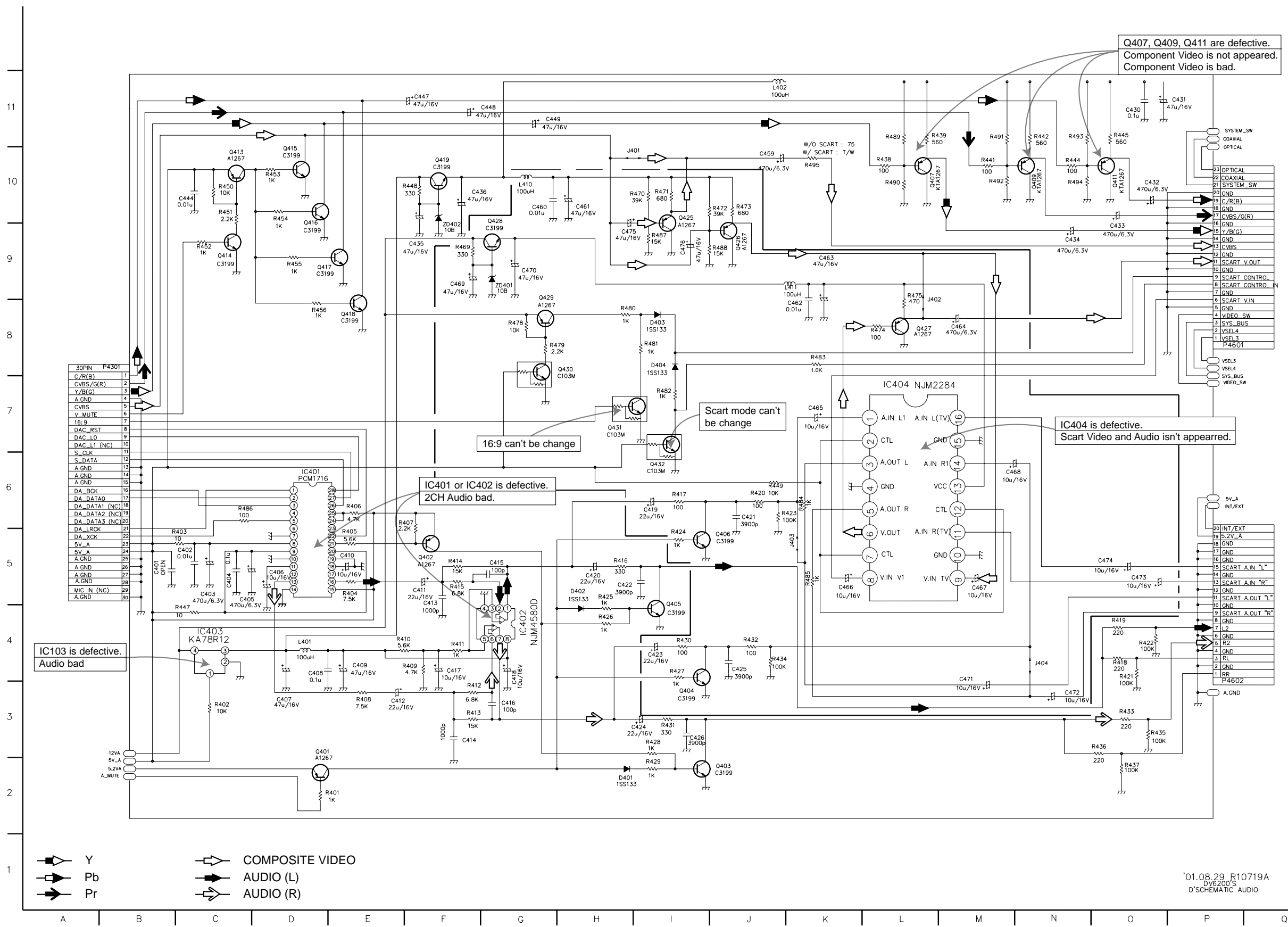


IC501 Pin 114, Luminance
(Super video out Mode)



IC501 Pin 110
Component Pr

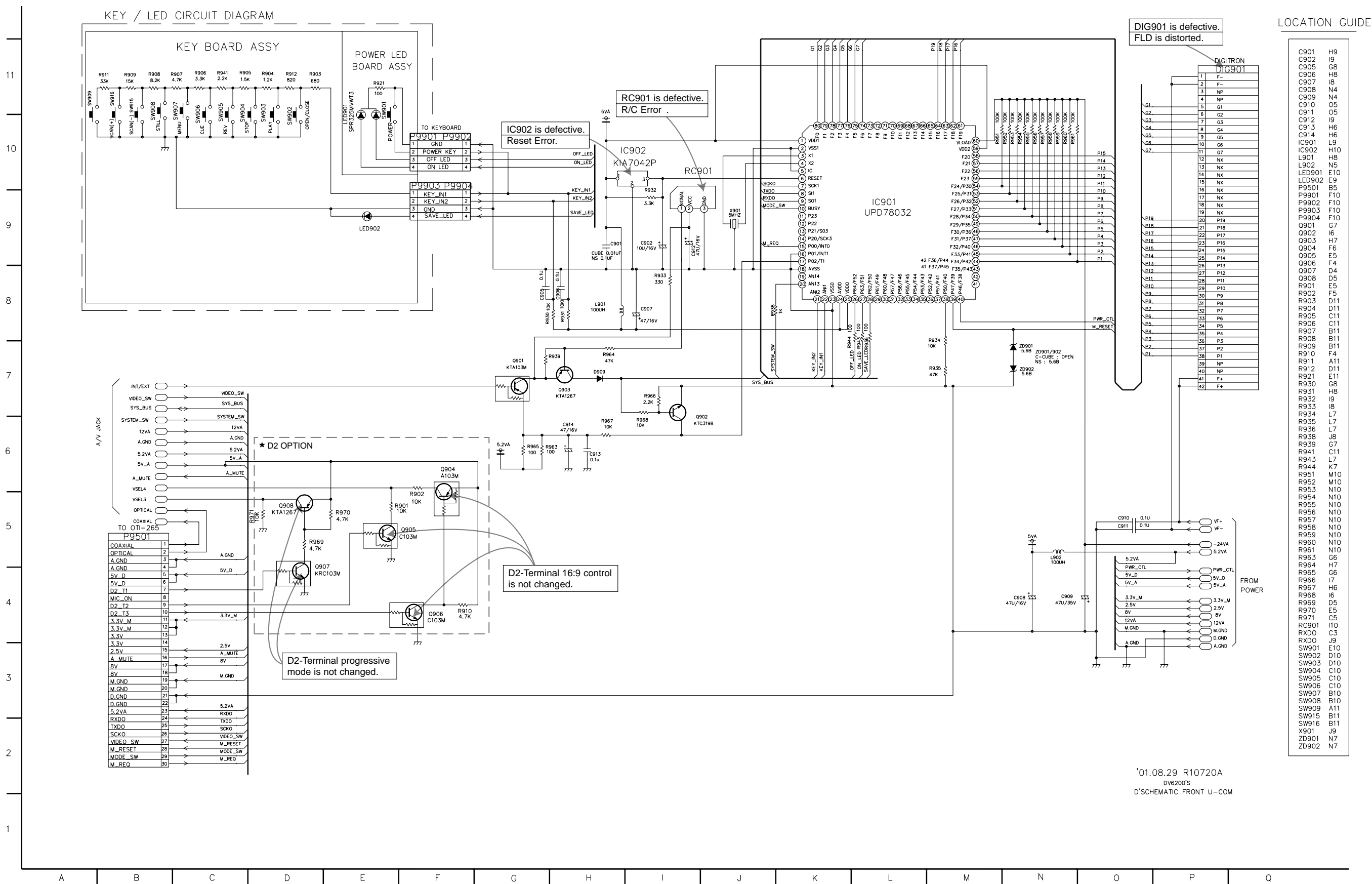
11.5 AUDIO DM & SCART CIRCUIT DIAGRAM



LOCATION GUIDE

12VA	B3	Q419	F10
5.2VA	B2	Q425	I10
5V_A	B2	Q426	J9
5V_A	P6	Q427	L8
A_GND	P3	Q428	G10
A_MUTE	B2	Q429	G9
C401	B5	Q430	H8
C402	C5	Q431	H7
C403	C5	Q432	I6
C404	C5	R401	D2
C405	C5	R402	C3
C406	D5	R403	B5
C407	D3	R404	E5
C408	D4	R405	E5
C409	E4	R406	E6
C410	E5	R407	E6
C411	F5	R408	E3
C412	E3	R409	E4
C413	F5	R410	E4
C414	F3	R411	F4
C415	O5	R412	F3
C416	G3	R413	F3
C417	F4	R414	F5
C418	G3	R415	F5
C419	I6	R416	H5
C420	H5	R417	I6
C421	J6	R418	O4
C422	H5	R419	O4
C423	I4	R420	J6
C424	H3	R421	O4
C425	J4	R422	O4
C426	I3	R423	J6
C430	O11	R424	I5
C431	P11	R425	H5
C432	O10	R426	H4
C433	O9	R427	I4
C434	N9	R428	I3
C435	F9	R429	I2
C436	F10	R430	I4
C444	C10	R431	I3
C447	F11	R432	J4
C448	C11	R433	O3
C449	G11	R434	J4
C459	J10	R435	O3
C460	G10	R436	O3
C461	H10	R437	O2
C462	K8	R438	L10
C463	K9	R439	L11
C464	M8	R441	M10
C465	K7	R442	N11
C466	K5	R444	N10
C467	M5	R445	O11
C468	M6	R447	C4
C469	F9	R448	E10
C470	G9	R449	J6
C471	N4	R450	C10
C472	N3	R451	C10
C473	O5	R452	C9
C474	O5	R453	D10
C475	H9	R454	D10
C476	I9	R455	D9
COAXIAL	P11	R456	D8
D401	H2	R459	F9
D402	H5	R460	H10
D403	I8	R471	I10
D404	I8	R472	J10
IC401	D6	R473	J10
IC402	G4	R474	L8
IC403	C4	R475	L9
IC404	L7	R478	G8
INT/EXT	P6	R479	G8
J401	H10	R480	H8
J402	L8	R481	I8
J403	K5	R482	I7
J404	N4	R483	K8
L401	D4	R484	K6
L402	D12	R485	K5
L410	C10	R486	C6
L411	J9	R487	I9
OPTICAL	P10	R488	J9
P4301	B8	R489	L11
P4601	B8	R490	L10
P4602	P3	R491	M11
Q401	O3	R492	M10
Q402	F5	R493	N11
Q403	J2	R494	N10
Q404	I3	R495	K10
Q405	I4	SYSTEM_SW	
Q406	J5	SYS_BUSP7	
Q407	L10	VIDEO_SW7	
Q408	N10	VS4	
Q411	O10	VS4L4	P8
Q413	C10	ZD401	G9
Q414	C9	ZD402	F9
Q415	D10		
Q416	D9		
Q417	D9		
Q418	E8		

11.6 FRONT MICOM CIRCUIT DIAGRAM



[illegible]

JK602

JK604 D2 TERMINAL

★ D2 OPTION

★ SCART OPTION

LOCATION GUIDE

BC601	M9
C601	E10
C614	L9
C615	L10
C616	O7
COAX.	B7
CVBS	C6
CVBS	H8
F601	D7
F602	D7
F603	C6
F604	F10
F605	H10
F606	H10
F607	I10
F608	J10
F609	K10
F610	O4
F611	O6
F612	P5
JK601	D11
JK602	I11
JK603	P8
JK604	M11
L601	F10
L602	G10
L607	M10
L608	M10
L609	M11
OPT.	C7
OPT.	E8
P6401	B7
P6402	B5
R602	D10
R603	D10
R604	D10
R605	E6
R615	F9
R617	G9
R619	L9
R620	M10
R621	M10
R622	M9
R623	M10
R626	M9
R627	M9
R630	O7
R631	O6
R632	M5
R633	N5
R634	M4
R635	M4
R636	M4
R637	M4
R638	N5
R639	O5
R640	N4
R641	N4
R642	M4
R643	N4
R644	O4
R645	O3
R646	D6
R647	I9
R648	I9
R649	I8
R650	I8
R651	I9
R652	I9
R653	J8
R654	J8
R655	J9
R656	J9
R657	N9
SW601	E5
SW602	C11
SW603	C11
ZD601	D10
ZD602	D10
ZD603	E10
ZD604	D9
ZD605	F9
ZD606	F9
ZD607	G9
ZD608	G9
ZD609	I10
ZD610	I10
ZD611	I10
ZD612	I9
ZD613	J10
ZD614	J9
ZD615	G10
ZD616	G10
ZD617	L9
ZD618	L9

'01.08.29 R10722A
DV6200S
D'SCHEMATIC A/V JACK

• CIRCUIT VOLTAGE CHART

MODE PIN NO.	EE	PLAY
D S P		
IC201 SP3301		
1	2.00	1.30
2	2.00	1.30
3	2.00	1.30
4	2.00	1.30
5	2.00	1.30
6	2.00	1.30
7	2.00	1.30
8	2.00	1.30
9	2.00	1.30
10	2.00	1.30
11	2.00	1.30
12	2.00	1.30
13	2.00	1.30
14	2.00	1.30
15	2.00	1.30
16	2.00	1.30
17	0.00	0.00
18	0.00	1.50
19	0.00	1.50
20	0.00	1.50
21	0.00	1.50
22	3.10	3.00
23	0.00	1.50
24	0.00	1.50
25	0.00	1.50
26	0.00	1.50
27	0.00	1.50
28	2.10	1.50
29	0.00	0.00
30	2.10	2.00
31	3.10	3.00
32	3.10	1.50
33	3.10	2.50
34	3.10	2.50
35	2.10	1.30
36	1.10	1.80
37	0.00	0.00
38	0.00	0.00
39	0.00	0.00
40	3.10	3.00
41	0.00	0.00
42	3.10	3.00
43	0.00	0.00
44	0.00	0.00
45	3.10	3.00
46	0.00	0.00
47	0.00	0.00
48	0.00	0.00
49	0.00	3.00
50	0.00	0.00
51	0.00	0.00
52	3.10	1.80
53	0.00	0.00

MODE PIN NO.	EE	PLAY
54	3.10	3.00
55	3.10	3.00
56	0.00	0.00
57	0.00	3.13
58	5.00	4.98
59	0.00	0.00
60	0.00	0.00
61	5.00	4.98
62	0.00	0.00
63	2.10	2.10
64	0.00	0.00
65	3.10	3.00
66	0.00	0.00
67	3.10	3.12
68	0.00	0.00
69	0.00	0.20
70	0.00	0.00
71	3.10	3.10
72	0.00	0.20
73	0.00	0.00
74	3.10	3.10
75	0.00	0.00
76	0.00	0.00
77	0.00	0.00
78	0.00	2.30
79	3.10	3.10
80	5.00	5.00
81	0.00	0.00
82	5.00	5.00
83	2.10	2.00
84	2.10	2.10
85	3.10	3.10
86	1.40	1.40
87	0.00	0.00
88	2.10	2.00
89	2.10	2.00
90	0.00	0.00
91	1.50	1.55
92	3.10	3.12
93	1.60	1.55
94	1.10	1.11
95	2.00	2.00
96	1.55	1.55
97	0.00	0.00
98	1.55	1.55
99	1.56	2.15
100	3.10	3.10
101	1.55	1.58
102	1.55	1.55
103	1.62	1.64
104	1.55	1.55
105	1.50	1.50
106	0.00	0.00
107	0.00	0.00
108	0.00	0.00

MODE PIN NO.	EE	PLAY
109	0.00	0.00
110	0.00	0.00
111	0.00	0.00
112	0.00	0.00
113	3.40	4.70
114	5.00	5.00
115	1.50	1.50
116	1.50	1.53
117	3.10	3.10
118	0.00	0.00
119	0.00	0.00
120	3.50	4.20
121	3.25	4.20
122	3.45	4.30
123	3.50	4.30
124	3.50	4.30
125	3.50	4.50
126	0.00	0.00
127	3.60	2.60
128	0.00	0.00
129	3.60	2.60
130	0.00	0.20
131	0.00	0.00
132	0.00	3.10
133	3.10	3.10
134	0.00	0.00
135	0.00	0.00
136	3.10	2.20
137	0.00	0.00
138	0.00	0.00
139	3.10	3.10
140	3.00	3.10
141	0.00	0.00
142	3.00	3.00
143	3.10	3.10
144	3.10	3.10
145	3.10	0.90
146	3.50	4.50
147	0.00	0.00
148	0.00	0.00
149	0.00	0.00
150	0.00	0.00
151	0.00	0.00
152	0.00	0.00
153	0.00	0.00
154	0.00	0.00
155	1.55	1.55
156	3.10	3.10
157	1.50	1.50
158	0.00	0.00
159	0.00	0.00
160	2.60	2.60
161	3.10	3.10
162	2.00	2.00
163	2.00	2.00

MODE PIN NO.	EE	PLAY
164	1.40	1.40
165	3.20	0.00
166	1.60	1.75
167	0.00	0.00
168	0.00	3.10
169	0.00	3.10
170	5.00	2.50
171	0.00	2.50
172	3.10	0.00
173	3.10	3.10
174	3.10	3.10
175	3.10	3.10
176	2.53	1.30
177	4.24	4.97
178	5.00	5.00
179	2.70	0.20
180	3.26	2.30
181	3.10	2.50
182	2.40	2.50
183	3.66	2.80
184	2.40	2.50
185	0.00	0.00
186	2.26	2.00
187	3.10	3.10
188	2.20	2.40
189	1.75	1.90
190	2.20	1.80
191	1.80	1.80
192	2.20	2.20
193	1.25	1.30
194	1.00	1.10
195	5.00	5.00
196	0.00	2.25
197	0.00	1.60
198	0.00	1.50
199	0.00	1.50
200	0.00	1.50
201	0.00	1.50
202	0.00	1.50
203	0.00	1.50
204	0.00	1.50
205	3.10	2.60
206	1.50	1.50
207	3.10	3.10
208	3.10	3.10
IC205 GM71C4260CJ		
1	3.16	3.18
2	2.01	2.07
3	2.01	2.07
4	2.02	2.07
5	2.02	2.07
6	3.16	3.18
7	2.02	2.08
8	2.02	2.07
IC203 NJM3414AM		
1	2.00	2.00
2	2.00	2.00
3	2.00	2.00
4	0.00	0.00
5	1.10	1.10

MODE PIN NO.	EE	PLAY
10	2.02	2.07
11	0.10	0.00
12	0.26	0.00
13	2.08	2.09
14	3.16	3.17
15	0.00	0.00
16	0.00	0.00
17	0.00	0.00
18	0.00	0.00
19	0.00	0.00
20	3.15	3.18
21	0.00	0.00
22	0.00	0.00
23	0.00	0.00
24	0.00	0.00
25	0.00	0.00
26	0.00	0.00
27	1.06	1.07
28	3.14	3.17
29	3.14	3.16
30	0.00	0.00
31	2.01	2.08
32	2.02	2.08
33	2.02	2.08
34	2.02	2.08
35	0.00	0.00
36	2.02	2.08
37	2.02	2.08
38	2.02	2.08
39	2.02	2.08
40	0.00	0.00
IC204 4W53FU		
1	1.50	1.50
2	0.00	0.00
3	0.00	0.00
4	0.00	0.00
5	3.10	3.10
6	1.50	1.50
7	2.72	2.60
8	5.00	5.00
IC206 7W04FU		
1	2.60	2.60
2	2.80	2.70
3	2.80	2.70
4	0.00	0.00
5	2.10	2.10
6	2.20	2.20
7	2.20	2.20
8	5.00	5.00
IC203 NJM3414AM		
1</		

MODE PIN NO.	EE	PLAY
37	2.56	1.84
38	0.00	0.00
39	2.40	2.76
40	2.87	2.72
41	3.06	3.06
42	2.24	2.37
43	3.06	3.06
44	0.00	0.00
45	0.00	2.42
46	0.00	0.00
47	2.86	2.73
48	2.41	2.78
49	30.60	3.08
50	2.56	2.69
51	2.55	2.67
52	0.00	0.00
53	2.53	2.68
54	2.52	2.66
55	30.60	3.07
56	2.52	2.28
57	0.00	0.00
58	0.00	0.00
59	0.00	0.00
60	1.10	1.50
61	2.17	1.54
62	2.07	1.54
63	2.08	1.78
64	2.14	1.66
65	0.06	0.15
66	0.06	0.25
67	3.05	3.04
68	1.64	1.61
69	0.00	0.09
70	0.00	0.08
71	0.00	0.00
72	0.00	0.00
73	0.00	0.00
74	2.23	0.00
75	3.06	3.03
76	2.86	1.70
77	2.40	1.76
78	0.00	0.00
79	2.55	1.86
80	2.57	1.92
81	3.06	3.06
82	2.54	1.84
83	2.54	1.66
84	0.00	0.00
85	0.00	1.77
86	0.00	0.03
IC3F1		
1	0.00	0.00
2	0.02	0.00
3	0.00	0.00
4	0.02	0.00

MODE PIN NO.	EE	PLAY
5	0.00	0.00
6	0.00	0.00
7	0.00	0.00
8	0.00	0.00
9	2.40	2.75
10	0.18	0.20
11	3.07	3.05
12	3.05	2.99
13	1.19	1.36
14	0.00	0.02
15	1.20	1.55
16	3.10	0.73
17	0.00	0.00
18	0.00	0.00
19	0.00	0.00
20	0.00	0.00
21	0.00	2.23
22	0.00	2.13
23	0.00	2.22
24	0.00	0.15
25	3.04	0.74
26	3.04	3.05
27	0.00	0.00
28	3.04	3.05
29	3.03	3.00
30	3.03	3.00
31	3.03	3.00
32	3.03	3.00
33	3.03	2.99
34	3.04	2.99
35	3.04	3.00
36	3.04	3.00
37	3.04	3.00
38	3.03	0.40
39	3.03	3.00
40	3.03	3.00
41	3.03	3.00
42	3.02	2.99
43	3.02	3.00
44	3.03	3.00
45	3.02	3.00
46	0.00	0.00
47	3.03	3.03
48	0.00	0.00
IC302		
1	0.00	0.00
2	0.40	0.39
3	2.93	2.99
4	2.92	2.97
5	2.90	2.98
6	2.99	2.98
7	3.00	2.97
8	2.99	2.95
9	2.96	2.95
10	0.02	0.00

MODE PIN NO.	EE	PLAY
11	0.00	0.00
12	0.00	0.00
13	0.00	0.00
14	0.00	0.00
15	0.00	0.00
16	0.00	0.00
17	0.00	0.00
18	0.00	0.00
19	0.00	2.30
20	3.01	3.06
IC303		
1	0.00	0.00
2	3.02	2.99
3	3.02	2.99
4	2.97	2.99
5	2.94	3.00
6	2.95	3.00
7	2.97	2.99
8	2.95	2.98
9	2.94	3.00
10	0.00	0.00
11	0.00	0.00
12	2.89	2.70
13	3.04	0.70
14	0.00	0.00
15	0.00	0.00
16	0.00	0.00
17	0.00	0.00
18	0.00	0.00
19	0.00	0.00
20	3.03	3.04
IC505 7W04FU		
1	1.56	1.56
2	2.48	2.46
3	2.56	2.55
4	0.00	0.00
5	2.47	2.46
6	2.56	2.55
7	2.56	2.55
8	5.00	4.99
A U D I O		
IC401 7W04FU		
1	1.57	1.57
2	0.00	1.56
3	1.57	1.57
4	2.22	1.22
5	1.57	1.57
6	3.05	3.82
7	3.73	4.01
8	4.99	4.89
9	5.03	5.02
10	0.00	2.44
11	3.50	2.47
12	3.20	2.40
13	1.47	2.47

MODE PIN NO.	EE	PLAY
14	0.00	2.09
15	4.91	4.92
16	2.00	2.48
17	2.00	4.49
18	1.49	4.96
19	0.00	0.00
20	5.02	5.02
21	0.00	5.02
22	5.00	5.53
23	0.00	0.00
24	4.90	4.89
25	1.24	5.27
26	0.00	0.00
27	4.98	3.00
28	4.99	4.08
IC403		
1	5.03	5.03
2	0.00	0.00
3	11.84	11.85
4	12.78	12.69
IC402 NJM4580		
1	5.36	5.37
2	5.37	5.35
3	5.37	5.35
4	0.00	0.00
5	5.36	5.37
6	5.37	5.37
7	5.37	5.35
8	11.80	11.78
S Y S T E M		
IC501		
1	3.08	3.06
2	2.33	1.30
3	2.38	1.40
4	2.16	2.20
5	2.33	1.50
6	0.00	0.00
7	2.17	1.50
8	2.62	1.40
9	2.09	1.60
10	3.08	3.06
11	0.00	0.70
12	0.21	0.15
13	0.00	0.15
14	0.00	0.00
15	3.12	0.00
16	3.12	1.70
17	0.00	0.00
18	0.00	0.00
19	3.12	3.06
20	0.00	1.60
21	0.00	0.00
22	1.64	1.60
23	0.00	0.00
24	3.12	3.10

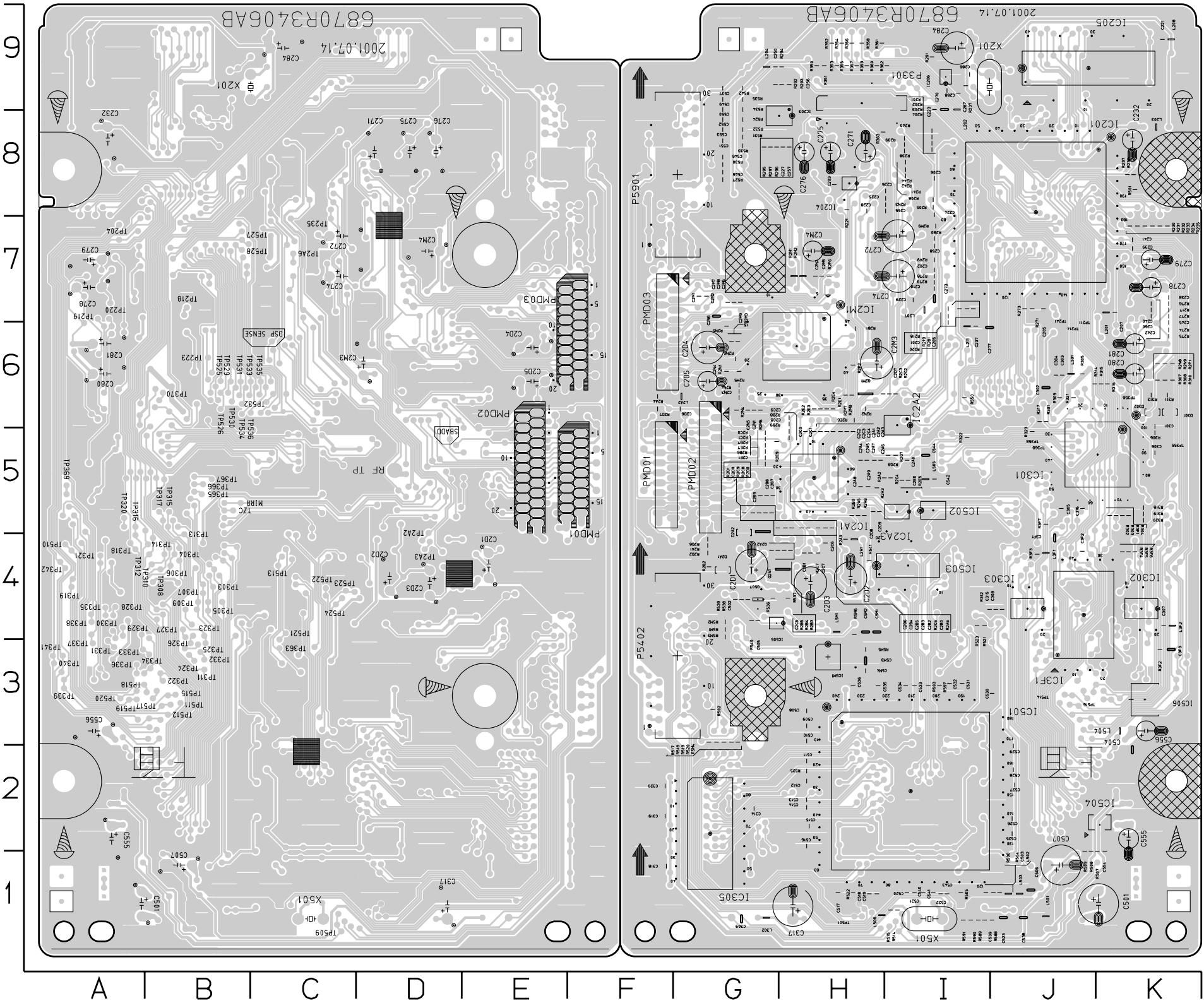
MODE PIN NO.	EE	PLAY
25	0.00	1.70
26	0.00	1.40
27	3.12	3.06
28	0.00	1.50
29	0.00	0.15
30	0.00	0.00
31	0.00	0.00
32	0.00	0.70
33	3.12	1.50
34	2.31	2.20
35	3.12	2.00
36	3.12	3.06
37	3.12	2.90
38	3.12	2.20
39	3.12	2.90
40	0.00	0.00
41	0.00	0.00
42	0.00	0.00
43	2.80	1.60
44	3.12	3.06
45	0.37	1.60
46	0.86	1.50
47	0.00	0.00
48	2.34	1.40
49	0.00	0.00
50	2.32	1.20
51	2.20	1.70
52	2.60	1.20
53	3.05	3.06
54	2.04	1.60
55	2.33	1.4
56	2.30	1.50
57	0.00	0.00
58	2.37	1.60
59	2.60	1.40
60	3.13	1.50
61	3.13	1.40
62	3.13	3.06
63	3.13	1.00
64	3.13	1.50
65	0.00	0.00
66	0.18	0.50
67	0.00	0.00
68	1.56	1.58
69	0.00	0.00
70	0.00	3.10
71	0.00	1.20
72	0.00	1.20
73	0.00	1.20
74	0.00	1.20
75	3.10	3.06
76	1.58	1.65
77	2.76	2.20
78	1.54	1.50
79	1.57	1.50

MODE PIN NO.	EE	PLAY
80	3.14	3.10
81	2.95	3.10
82	0.00	0.00
83	3.13	3.10
84	0.00	3.70
85	0.00	0.00
86	0.00	0.10
87	3.13	3.10
88	3.14	3.10
89	2.77	2.20
90	0.00	3.10
91	3.14	3.06
92	0.00	0.00
93	3.06	3.05
94	3.06	3.04
95	0.00	0.00
96	3.06	0.00
97	0.00	0.00
98	0.95	0.95
99	0.85	0.85
100	0.00	0.00
101	2.09	2.20
102	3.08	3.06
103	0.00	0.00
104	0.00	0.00
105	0.00	0.00
106	0.00	0.00
107	0.00	2.10
108	2.14	2.10
109	0.00	0.00
110	0.98	0.80
111	0.76	0.90
112	1.19	1.30
113	3.03	3.05
114	0.88	0.78
115	0.00	0.00
116	1.13	1.26
117	2.29	2.33
118	0.86	0.08
119	1.13	1.20
120	1.90	2.00
121	0.00	0.00
122	3.06	3.10
123	3.07	3.10
124	3.07	3.10
125	3.07	3.06
126	3.07	3.06
127	3.07	3.06
128	3.07	3.06
129	3.07	3.05
130	3.07	3.05
131	3.07	3.06
132	0.00	0.00
133	3.06	3.06
134	3.06	3.06

MODE PIN NO.	EE	PLAY
135	2.22	2.20
136	3.07	3.05
137	3.07	3.10
138	3.06	3.10
139	3.06	3.10
140	3.07	3.06
141	3.06	3.10
142	3.06	3.10
143	3.06	3.10
144	3.06	3.10
145	3.06	3.10
146	3.06	3.10
147	0.00	0.00
148	3.06	3.10
149	3.04	3.10
150	3.04	3.10
151	3.03	3.10
152	3.04	3.10
153	3.03	3.10
154	3.06	3.06
155	3.05	3.10
156	3.07	3.10
157	3.05	3.10
158	3.05	3.10
159	2.16	2.20
160	1.54	1.50
161	3.07	3.10
162	0.00	0.00
163	3.06	0.00
164	3.05	3.10
165	3.05	3.10
166	3.05	3.10
167	3.05	3.10
168	3.05	3.10
169	3.08	3.06
170	3.08	3.10
171	0.00	0.00
172	3.05	3.10
173	3.05	3.10
174	3.05	3.10
175	0.40	1.50
176	3.05	3.10
177	0.00	0.00
178	3.05	3.10
179	3.05	3.10
180	3.05	3.10
181	3.06	3.06
182	3.06	3.18
183	0.00	0.09
184	3.07	3.00
185	0.00	2.40
186	0.00	2.30
187	0.00	0.00
188	0.00	0.00
189	3.08	3.10

MODE PIN NO.	EE	PLAY
190	0.00	0.00
191	0.00	0.02
192	2.15	2.20
193	3.07	3.10
194	3.07	3.10
195	0.03	0.00
196	3.07	3.06
197	0.00	1.30
198	3.07	3.10
199	3.07	3.10
200	3.07	3.10
201	0.00	0.00
202	0.00	2.30
203	3.07	3.10
204	0.00	0.00
205	3.03	3.10
206	3.06	3.10
207	3.58	3.10
208	4.78	1.50
209	3.06	3.10
210	3.06	3.06
211	0.00	0.02
212	2.13	2.20
213	3.03	3.19
214	0.00	2.69
215	1.50	1.50
216	3.02	2.90
217	0.00	2.59
218	0.00	0.00
219	0.00	2.29
220	0.00	2.08
221	0.00	2.30
222	0.00	2.30
223	0.00	2.49
224	3.05	3.06
225	0.00	3.10
226	0.00	2.40
227	3.00	2.40
228	0.00	0.00
229	2.50	1.52
230	0.00	0.00
231	2.51	1.60
232	2.53	1.60
233	3.04	3.06
234	2.55	1.60
235	2.37	1.60
236	2.87	1.60
237	0.00	0.00
238	2.22	1.60
239	2.55	1.40
240	2.53	1.50
IC503		
1	0.00	0.00
2	3.08	2.93
3	0.00	4.97

12. PRINTED CIRCUIT DIAGRAMS
12.1 MAIN P.C.BOARD

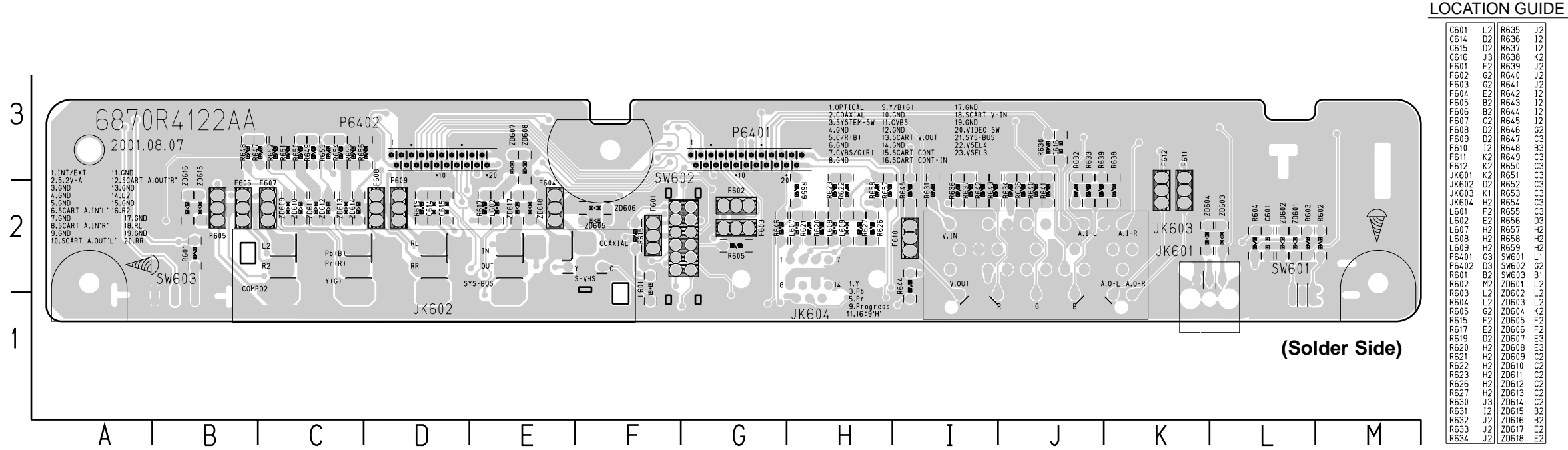


(Solder Side)

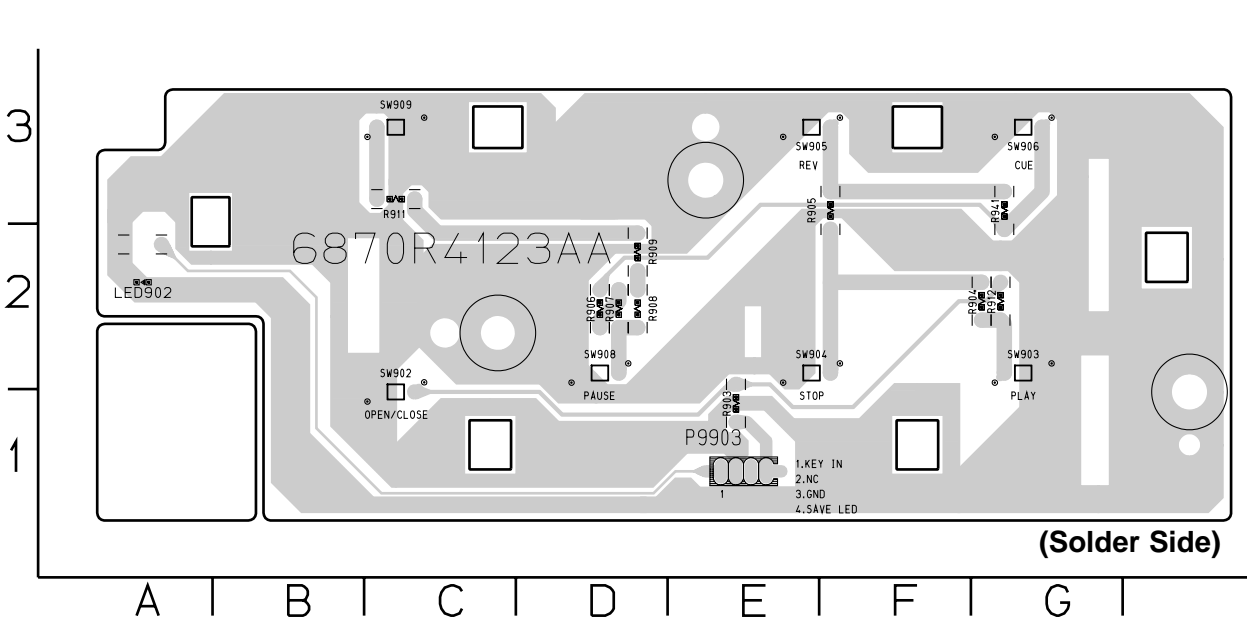
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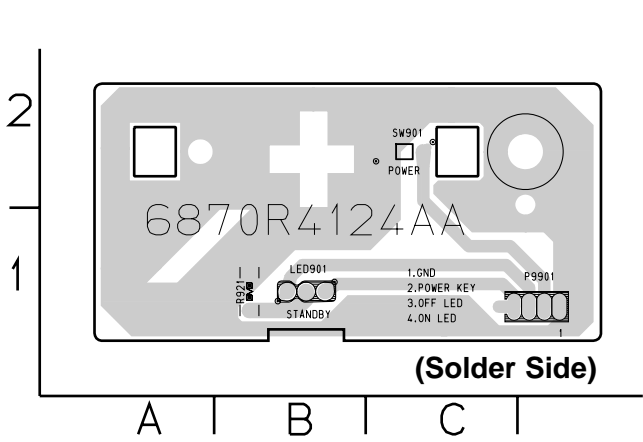
12.3 JACK P.C.BOARD



12.4 KEY P.C.BOARD



12.5 LED P.C.BOARD



13. ELECTRICAL PARTS LIST

ASSIGNMENT OF COMMON PARTS CODES.

RESISTORS

R***: 1) GD05××× 140, Carbon film fixed resistor, ±5% 1/4W

R***: 2) GD05××× 160, Carbon film fixed resistor, ±5% 1/6W

① Resistance value

Examples ;

① Resistance value

0.1 Ω 001	10 Ω 100	1 kΩ 102	100 kΩ 104
0.5 Ω 005	18 Ω 180	2.7 kΩ 272	680 kΩ 684
1 Ω 010	100 Ω 101	10 kΩ 103	1 MΩ 105
6.8 Ω 068	390 Ω 391	22 kΩ 223	4.7 MΩ 475

Note : Please distinguish 1/4W from 1/6W by the shape of parts used actually.

CAPACITORS

C***: CERAMIC CAP.

3) DD1×××× 370, Ceramic capacitor

Disc type

Temp.coef.P350 ~N1000, 50V

② Capacity value

③ Tolerance

Examples ;

② Tolerance (Capacity deviation)

±0.25 pF 0

±0.5 pF 1

±5% 5

* Tolerance of COMMON PARTS handled here are as follows :

0.5 pF ~ 5 pF ±0.25 pF

6 pF ~ 10 pF ±0.5 pF

12 pF ~ 560 pF ±5%

③ Capacity value

0.5 pF 005	3 pF 030	100 pF 101
1 pF 010	10 pF 100	220 pF 221
1.5 pF 015	47 pF 470	560 pF 561

C*** : CERAMIC CAP.

4) DK16××× 300, High dielectric constant ceramic capacitor

Disc type



Temp.chara. 2B4, 50V

④ Capacity value

Examples ;

④ Capacity value

100 pF 101	1000 pF 102	10000 pF 103
470 pF 471	2200 pF 222	

C*** : 5) ELECTROLY CAP. (, 6) FILM CAP. ()

5) EA××××× 10, Electrolytic capacitor

One-way lead type, Tolerance ±20%

⑤ Working voltage

⑥ Capacity value

Examples ;

⑤ Capacity value

0.1 μF 104	4.7 μF 475	100 μF 107
0.33 μF 334	10 μF 106	330 μF 337
1 μF 105	22 μF 226	1100 μF 118
		2200 μF 228

⑥ Working voltage

6.3V 006	25V 025
10V 010	35V 035
16V 016	50V 050

6) DF15××× 350 Plastic film capacitor

DF15××× 310 One-way type, Mylar ±5% 50V

DF16××× 310 Plastic film capacitor

One-way type, Mylar ±10% 50V

⑦ Capacity value

Examples ;

⑦ Capacity value

0.001 μF (1000 pF)	102	0.1 μF 104
0.0018 μF	182	0.56 μF 564
0.01 μF	103	1 μF 105
0.015 μF	153	

NOTE : 1) The above CODES (R***, R***, C***, C*** and C***) are omitted on the schematic diagram in some case.

2) On the occasion, be confirmed the common parts on the parts list.

3) Refer to “Common Parts List” for the other common parts (**RI05**, **DD4**, **DK4**).

NOTE ON SAFETY FOR FUSIBLE RESISTOR :

The suppliers and their type numbers of fusible resistors are as follows;

1. KOA Corporation

Part No. (MJl)	Type No. (KOA)	Description
NH05××× 140	RF25S×××× ΩJ	(±5% 1/4W)
NH05××× 120	RF50S×××× ΩJ	(±5% 1/2W)
NH85××× 110	RF73B2A×××× ΩJ	(±5% 1/10W)
NH95××× 140	RF73B2E×××× ΩJ	(±5% 1/4W)

* Resistance value

Resistance value (0.1 Ω – 10 kΩ)

2. Matsushita Electronic Components Co., Ltd

Part No. (MJl)	Type No. (MEC)	Description
NF05××× 140	ERD-2FCJ×××	(±5% 1/4W)
RF05××× 140		
NF02××× 140	ERD-2FCG×××	(±2% 1/4W)
RF02××× 140		

* Resistance value

* Resistance value

Examples ;

* Resistance value



0.1 Ω 001	10 Ω 100	1 kΩ 102	100 kΩ 104
0.5 Ω 005	18 Ω 180	2.7 kΩ 272	680 kΩ 684
1 Ω 010	100 Ω 101	10 kΩ 103	1 MΩ 105
6.8 Ω 068	390 Ω 391	22 kΩ 223	4.7 MΩ 475

ABBREVIATION AND MARKS			
ANT.	: ANTENNA	BATT.	: BATTERY
CAP.	: CAPACITOR	CER.	: CERAMIC
CONN.	: CONNECTING	DIG.	: DIGITAL
HP	: HEADPHONE	MIC.	: MICROPHONE
μ-PRO	: MICROPROCESSOR	REC.	: RECORDING
RES.	: RESISTOR	SPK	: SPEAKER
SW	: SWITCH	TRANSF.	: TRANSFORMER
TRIM.	: TRIMMING	TRS.	: TRANSISTOR
VAR.	: VARIABLE	X'TAL	: CRYSTAL


NOTE ON FUSE :

Regarding to all parts of parts code **FS20xxx2xx**, replace only with Wickmann-Werke GmbH, Type 372 non glass type fuse.

NOTE ON SAFETY :

Symbol  Fire or electrical shock hazard. Only original parts should be used to replaced any part marked with symbol . Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.

安全上の注意 :

 がついている部品は、安全上重要な部品です。必ず指定されている部品番号の部品を使用して下さい。

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
C100	S, N	nsp	CAPACITORS	
C101		nsp	ELECT 10μF 50V SRA	nsp
C102	S, N	nsp	DRAWING 0.1μF/2435D	nsp
C103	U, F	nsp	DRAWING 0.1μF/2435D	nsp
C103	S, N	9965 000 07003	ELECT 100μF 200V SMS	*EA000970R
C104	S, N	nsp	ELECT 68μF 400V SHL SD	*EA000980R
C105		nsp	TUBULAR 0.022μF 50V Z	nsp
C106		nsp	MYLAR 0.01μF D 630V K	nsp
C109	S, N	nsp	HIGH-VOL100pF 1KV	nsp
C110	U, F	nsp	MYLAR 0.047μF S 50V J	nsp
C111	U, F	nsp	MYLAR 0.0047μ S 50V J	nsp
C112	U, F	nsp	ELECT 3.3μF 50V 20% SRA SS	nsp
C114	S, N	nsp	MYLAR 0.015μF S 50V J	nsp
C114	U, F	nsp	SEMI CER. 3300pF 400V M	nsp
C115	U, F	nsp	103/400V SMPS	nsp
C116		9965 000 07004	MYLAR 0.015μF S 50V J	nsp
C118		nsp	ELECT 470μF 25V M KME	EA47702520
C119		9965 000 00393	ELECT 100μF 16V M SMS	nsp
C120	U, F	nsp	47μF 50V KME	EA47605020
			103/400V SMPS	nsp
C121		nsp	ELECT 220μF 16V SMS	nsp
C123		4822 124 23111	ELECT 1000μF 16V M KME	EA10801620
C124		4822 124 23111	ELECT 1000μF 16V M KME	EA10801620
C125		nsp	ELECT 330μF 10V M	nsp
C126		9965 000 07004	ELECT 470μF 25V M	EA47702520
C127		nsp	ELECT 220μF 25V ±20%	nsp
C128		nsp	MYLAR 0.047μF 50V S	nsp
C129		nsp	ELECT 10μF 16V	nsp
C130		nsp	ELECT 100μF 16V	nsp
C131		nsp	ELECT 100μF 16V	nsp
C134		nsp	ELECT 100μF 16V	nsp
C137		nsp	ELECT 470μF 10V	nsp
C140		nsp	ELECT 470μF 10V	nsp ^V
C201		nsp	CHIP CER. 0.1μF 50V Z	nsp
C203		nsp	CHIP CER. 0.1μF 50V Z	nsp
C205		nsp	CHIP CER. 0.1μF 50V Z	nsp
C206		nsp	CHIP CER. 0.1μF 50V Z	nsp
C207		nsp	CHIP CER. 0.1μF 50V Z	nsp
C210		nsp	CHIP CER. 0.1μF 50V Z	nsp
C221		nsp	CHIP CER. 0.1μF 50V Z	nsp
C223		nsp	CHIP CER. 0.1μF 50V Z	nsp
C224		nsp	CHIP CER. 0.1μF 50V Z	nsp
C226				
		nsp	CHIP CER. 0.1μF 50V Z	nsp
C229				
C232		nsp	ELECT 10μF 16V	nsp
C237		nsp	CHIP CER. 0.1μF 50V Z	nsp
C238		nsp	CHIP CER. 0.1μF 50V Z	nsp
C239		nsp	CHIP CER. 0.1μF 50V Z	nsp
C240		nsp	CHIP CER. 2200pF 50V K	nsp
C241		nsp	CHIP CER. 0.1μF 50V Z	nsp
C242		nsp	CHIP CER. 0.1μF 50V Z	nsp
C245		nsp	CHIP CER. 0.1μF 50V Z	nsp
C250		nsp	CHIP CER. 0.1μF 50V Z	nsp
C255				
		nsp	CHIP CER. 0.1μF 50V Z	nsp
C258				
C260		nsp	CHIP CER. 10pF 50V D	nsp
C270		nsp	CER. 2.2μF 16V +80% -20%	nsp
C271		nsp	ELECT 10μF 16V	nsp
C272		nsp	ELECT 47μF 16V	nsp
C273		nsp	CER. 2.2μF 16V +80% -20%	nsp
C274		nsp	ELECT 47μF 16V	nsp
C275		nsp	ELECT 10μF 16V	nsp
C276		nsp	ELECT 10μF 16V	nsp
C277		nsp	CER. 2.2μF 16V +80% -20%	nsp

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
C278				
		nsp	ELECT 10μF 16V	nsp
C281				
C284		nsp	ELECT 47μF 16V	nsp
C285		nsp	CHIP CER. 0.1μF 50V Z	nsp
C286		nsp	CHIP CER. 18pF 50V J	nsp
C287		nsp	CHIP CER. 18pF 50V J	nsp
C288		nsp	CHIP CER. 0.1μF 50V Z	nsp
C2A0		nsp	CHIP CER. 0.1μF 50V Z	nsp
C2A1		nsp	CHIP CER. 0.1μF 50V Z	nsp
C2A2		nsp	CHIP CER. 2200pF 50V K	nsp
C2A3				
		nsp	CHIP CER. 0.1μF 50V Z	nsp
C2A9				
C2B0		nsp	CHIP CER. 0.1μF 50V Z	nsp
C2B1		nsp	CHIP CER. 0.1μF 50V Z	nsp
C2B2		nsp	CHIP CER. 0.1μF 50V Z	nsp
C2B3		nsp	CHIP CER. 0.0470μF 25V Z	nsp
C2B4		nsp	CER. 560pF 50V K	nsp
C2B5		nsp	CER. 560pF 50V K	nsp
C2B6		nsp	CHIP CER. 0.033μF 50V K	nsp
C2B7		nsp	CHIP CER. 0.033μF 50V K	nsp
C2B8		nsp	CHIP CER. 0.1μF 50V Z	nsp
C2B9		nsp	CHIP CER. 0.1μF 50V Z	nsp
C2C0		nsp	CHIP CER. 220pF 50V J	nsp
C2C1				
		nsp	CHIP CER. 2200pF 50V K	nsp
C2C4				
C2C5		nsp	CHIP CER. 0.1μF 50V Z	nsp
C2C8		nsp	CHIP CER. 33pF 50V J	nsp
C2C9		nsp	CHIP CER. 33pF 50V J	nsp
C2D0		nsp	CHIP CER. 0.1μF 50V Z	nsp
C2D1				
		nsp	ELECT 47μF 16V	nsp
C2D4				
C2D5		nsp	ELECT 10μF 16V	nsp
C2D6		nsp	CHIP CER. 0.1μF 50V Z	nsp
C2D7		nsp	CHIP CER. 0.1μF 50V Z	nsp
C2E1		nsp	CHIP CER. 1800pF 50V K	nsp
C2M1		nsp	CHIP CER. 0.1μF 50V Z	nsp
C2M2		nsp	CHIP CER. 0.1μF 50V Z	nsp
C2M3		nsp	ELECT 47μF 16V	nsp
C2M4		nsp	ELECT 10μF 16V	nsp
C2M5				
		nsp	CHIP CER. 0.1μF 50V Z	nsp
C2M8				
C2M9		nsp	CHIP CER. 0.022μF 50V Z	nsp
C2N1		nsp	CHIP CER. 4700pF 50V K	nsp
C2N2		nsp	CER. 0.01μF 50V ±10%	nsp
C2N3		nsp	CHIP CER. 6800pF 50V K	nsp
C2N4		nsp	CHIP CER. 0.1μF 50V Z	nsp
C2N5		nsp	CHIP CER. 0.1μF 50V Z	nsp
C2N6		nsp	CER. 2.2μF 16V +80% -20%	nsp
C301		nsp	CHIP CER. 0.1μF 50V Z	nsp
C302		nsp	CER. 2.2μF 16V +80% -20%	nsp
C303				
		nsp	CHIP CER. 0.1μF 50V Z	nsp
C308				
C309		nsp	CER. 2.2μF 16V +80% -20%	nsp
C314		nsp	CHIP CER. 0.1μF 50V Z	nsp
C315		nsp	CHIP CER. 56pF 50V J	nsp
C316		nsp	CHIP CER. 0.1μF 50V Z	nsp
C317		nsp	ELECT 10μF 16V	nsp
C318		nsp	CHIP CER. 0.1μF 50V Z	nsp
C319		nsp	CHIP CER. 0.1μF 50V Z	nsp
C320		nsp	CHIP CER. 0.1μF 50 Z	nsp

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)	POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
C3F1		nsp	CER. 2.2μF 16V +80% -20%	nsp	C506		nsp	CER. 2.2μF 16V +80% -20%	nsp
C3F2		nsp	CHIP CER. 0.1μF 50V Z	nsp	C508		nsp	CHIP CER. 0.1μF 50V Z	nsp
C3F3		nsp	CER. 2.2μF 16V +80% -20%	nsp	{		nsp	CHIP CER. 0.1μF 50V Z	nsp
C402		nsp	TUBULAR 0.01μF 16V	nsp	C522		nsp	CER. 2.2μF 16V +80% -20%	nsp
C403		nsp	ELECT 470μF 6.3V ±20%	nsp	C523		nsp	CHIP CER. 0.1μF 50V Z	nsp
C404		nsp	TUBULAR 0.1μF D 50V +80% -20%	nsp	C525		nsp	CHIP CER. 220pF 50V J	nsp
C405		nsp	ELECT 470μF 6.3V 20%	nsp	C536		nsp	CER. 2.2μF 16V +80% -20%	nsp
C406		nsp	ELECT 10μF 16V	nsp	C537		nsp	CHIP CER. 15pF 50V J	nsp
C407		nsp	ELECT 47μF 16V	nsp	C538		nsp	CHIP CER. 27pF 50V J	nsp
C408		nsp	TUBULAR 0.1μF D 50V +80% -20%	nsp	C540		nsp	CHIP CER. 0.1μF 50V Z	nsp
C409		nsp	ELECT 47μF 16V	nsp	C541		nsp	CHIP CER. 0.1μF 50V Z	nsp
C410		nsp	ELECT 10μF 16V	nsp	C542		nsp	CHIP CER. 220pF 50V J	nsp
C411	U	nsp	ELECT 22μF 16V ±20%	EJ22601610	C543		nsp	CER. 2.2μF 16V +80% -20%	nsp
C411	S, N, F	9965 000 11740	ELECT 22μF 16V	OA22601640	C544		nsp	CHIP CER. 220pF 50V J	nsp
C412	U	nsp	ELECT 22μF 16V ±20%	EJ22601610	C546		nsp	CHIP CER. 220pF 50V J	nsp
C412	S, N, F	9965 000 11740	ELECT 22μF 16V	OA22601640	C548		nsp	CHIP CER. 220pF 50V J	nsp
C413		nsp	TUBULAR 1000pF 50V K	nsp	C549		nsp	CHIP CER. 220pF 50V J	nsp
C414		nsp	TUBULAR 1000pF 50V K	nsp	C550		nsp	CHIP CER. 0.1μF 50V Z	nsp
C415		nsp	TUBULAR 100pF 50V J	nsp	C553		nsp	CHIP CER. 220pF 50V J	nsp
C416		nsp	TUBULAR 100pF 50V J	nsp	C556		nsp	ELECT 10μF 16V	nsp
C417		nsp	ELECT 10μF 16V	nsp	C614		nsp	TUBULAR 0.1μF D 50V +80% -20%	nsp
C418	U	nsp	ELECT 22μF 16V ±20%	EJ22601610	C615		nsp	TUBULAR 220pF 50V K	nsp
C418	S, N, F	9965 000 11740	ELECT 22μF 16V	OA22601640	C616	N	nsp	TUBULAR 0.01μF 16V	nsp
C419	N	nsp	ELECT 22μF 16V	nsp	C901		nsp	TUBULAR 0.1μF D 50V +80% -20%	nsp
C420	U	nsp	ELECT 22μF 16V ±20%	EJ22601610	C902		nsp	ELECT 10μF 16V	nsp
C420	S, N, F	9965 000 11740	ELECT 22μF 16V	OA22601640	C905		nsp	TUBULAR 0.1μF D 50V +80% -20%	nsp
C421	N	nsp	TUBULAR 3900pF 16V M	nsp	C906		nsp	TUBULAR 0.1μF D 50V +80% -20%	nsp
C422	U	nsp	MYLAR 3900pF D 100V ±5%	nsp	C907		nsp	ELECT 47μF 16V	nsp
C422	S, N, F	9965 000 05002	MYLAR 3900pF 100V	OF15392540	C908		nsp	ELECT 47μF 16V	nsp
C423	N	nsp	ELECT 22μF 16V	nsp	C909		nsp	ELECT 47μF 35V	nsp
C424	U	nsp	ELECT 22μF 16V ±20%	EJ22601610	C910		nsp	TUBULAR 0.1μF D 50V +80% -20%	nsp
C424	S, N, F	9965 000 11740	ELECT 22μF 16V	OA22601640	C911		nsp	TUBULAR 0.1μF D 50V +80% -20%	nsp
C425	N	nsp	TUBULAR 3900pF 16V	nsp	C912		nsp	ELECT 47μF 16V	nsp
C426	U	nsp	MYLAR 3900pF D 100V ±5%	nsp	C913		nsp	TUBULAR 0.1μF D 50V +80% -20%	nsp
C426	S, N, F	9965 000 05002	MYLAR 3900pF 100V	OF15392540	C914		nsp	ELECT 47μF 16V	nsp
C430		nsp	TUBULAR 0.1μF D 50V +80% -20%	nsp				DIODES	
C431		nsp	ELECT 47μF 16V	nsp	BD101		4822 130 81248	S1WBA60(1A 600V)	*HD201400R
C432		nsp	ELECT 470μF 6.3V ±20%	nsp	D101	U, F	nsp	SUF4005	*HD201610R
C433		nsp	ELECT 470μF 6.3V ±20%	nsp	D101	S, N	9965 000 11316	10SP07U(SUF4007SP)	*HD201620R
C434		nsp	ELECT 470μF 6.3V ±20%	nsp	D102	S, N	9965 000 06965	EU01W	*HD201390R
C435		nsp	ELECT 47μF 16V	nsp	D103	U, F	4822 130 32778	1SS133	HD20015210
C436		nsp	ELECT 47μF 16V	nsp	D104	U, F	4822 130 32778	1SS133	HD20015210
C444		nsp	TUBULAR 0.01μF 16V	nsp	D105	U, F	nsp	RL104	*HD201430R
C459		nsp	ELECT 470μF 6.3V ±20%	nsp	D106		9965 000 11317	HER202 100V 2A	*HD201630R
C460	N	nsp	TUBULAR 0.01μF 16V	nsp	D107	S, N	9965 000 06965	EU01W	*HD201390R
C461	N	nsp	ELECT 47μF 16V	nsp	D107	U, F	9965 000 06971	ERA18-02KFRB	*HD201460R
C462	N	nsp	TUBULAR 0.01μF 16V	nsp	D108		9965 000 06965	EU01W	*HD201390R
C463	N	nsp	ELECT 47μF 16V	nsp	D109		9965 000 11741	FMB-G24H LF651	*HD201640R
C464	N	nsp	ELECT 470μF 6.3V ±20%	nsp	D110		9965 000 06971	ERA18-02KFRB	*HD201460R
C465		nsp			D112		4822 130 33765	1N5402	*HD201450R
{	N	nsp	ELECT 10μF 16V	nsp	D113		4822 130 33765	1N5402	*HD201450R
C468		nsp			D116	U, F	nsp	RZ1040 40V 30A	*HD201420R
C469	N	nsp	ELECT 47μF 16V	nsp					
C470	N	nsp	ELECT 47μF 16V	nsp	D2A1		4822 130 33944	DAN202K	HZ20002210
C471		nsp			D2A2		4822 130 33944	DAN202K	HZ20002210
{	N	nsp	ELECT 10μF 16V	nsp	D301		4822 130 33944	DAN202K	HZ20002210
C474		nsp			D302		4822 130 33944	DAN202K	HZ20002210
C475	N	nsp	FILM 100 Ω 1/6W ±5%	nsp	D401		4822 130 32778	1SS133	HD20015210
C476	N	nsp	FILM 100 Ω 1/6W ±5%	nsp	D402		4822 130 32778	1SS133	HD20015210
C501		nsp	ELECT 47μF 16V	nsp	D403	N	4822 130 32778	1SS133	HD20015210
C502		nsp	CER. 0.01μF 50V ±10%	nsp					
C503		nsp	CHIP CER. 0.1μF 50V Z	nsp					
C504		nsp	CER. 2.2μF 16V +80% -20%	nsp					
C505		nsp	CHIP CER. 0.1μF 50V Z	nsp					

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POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
D404	N	4822 130 32778	1SS133	HD20015210
D909		4822 130 32778	1SS133	HD20015210
DIG901		9965 000 11754	DIGITRON 07SM10T	*HQ300540R
LED01		9965 000 11335	LED LTL-1CHEES-UA	*HI100990R
LED02		9965 000 11336	LED LTL-1CHKES-UA	*HI101000R
LED03		9965 000 11335	LED LTL-1CHEES-UA	*HI100990R
LED901		9965 000 04671	LED SPR325MVWT31 GREEN/RED	*HI100860R
LED902		9965 000 12046	LED SA3511F2T RED	*HI101010R
ZD101		5322 130 31504	ZENER UZ-3.3BSB	*HD302020R
ZD102	U, F	nsp	ZENER MTZJ6.2B 0.5W	HD30621000
ZD401	N	4822 130 83207	ZENER MTZ10B MINI	*HD302050R
ZD402		4822 130 83207	ZENER MTZ10B MINI	*HD302050R
ZD605		9965 000 07022	ZENER GDZJ5.6B	*HD301840R
ZD606				
∫		9965 000 07022	ZENER GDZJ5.6B	*HD301840R
ZD618				
ZD901		9965 000 07022	ZENER GDZJ5.6B	*HD301840R
ZD902		9965 000 07022	ZENER GDZJ5.6B	*HD301840R
INTEGRATED CIRCUITS				
F102		4822 252 51025	IC ICP-N10 IC DETACT	FU40115020
F104		4822 252 51083	IC ICP-N10 IC DETACT	FU80115020
IC101	S, N	9965 000 11320	IC KA5M0365R	*HC107420R
▲ IC102	S, N	4822 130 11545	SENSOR PHOTO PC123YN2	*HC200160R
IC104		4822 209 81397	IC KA431AZ (LM431AZ)	*HC105750R
IC105		9965 000 06979	IC KA78R08TSTU	*HC300410R
IC106		9965 000 12045	IC KA78R33TSTU	*HC300420R
IC107		9965 000 12045	IC KA78R33TSTU	*HC300420R
▲ IC108	U, F	nsp	SENSOR LTV-817B	*HC200090R
IC201		9965 000 11323	IC GDC25D801D DSP+SERV	*HC107430R
IC203		4822 209 90472	IC NJM3414AM	HC10179090
IC204		9965 000 11324	IC KIC7W53FU	*HC107440R
IC205		9965 000 06985	IC GLT440L16	*HC106620R
IC206		4822 209 33521	IC TC7W04FU	HC10382050
IC2A1		9965 000 06986	IC SSI33P3721(VER.2)	*HC105760R
IC2A2		4822 209 90472	IC NJM3414AM	HC10179090
IC2M1		9965 000 11325	IC FAN8727	*HC107510R
IC301		9965 000 11755	IC HS353064	*HC107540R
IC302		9965 000 11327	IC 74LCX573MTCX	*HC700420R
IC303		9965 000 11327	IC 74LCX573MTCX	*HC700420R
IC305		9965 000 11328	IC HY57V653220CTC-7	*HC107470R
IC3F1		nsp	IC AT49LV8192A-90TC	nsp
IC401		8203 303 11278	IC PCM1716E	*HC105580R
IC402	U	nsp	IC NJM4580D	HC10070090
IC402	S, N, F	4822 209 31153	IC NJM2114D OP AMP	HC10111090
IC403		9965 000 11756	IC KA78R12TSTU	*HC300430R
IC404	N	9965 000 11330	IC NJM2284	*HC107530R
IC501		nsp	IC NDV8601 MICOM+MPEG	*HC107560R
IC502		nsp	IC CAT93C56S	nsp
IC502	F	nsp	PROGRAM DVM4026N(FOR F)	nsp
IC502	U	nsp	PROGRAM DVM4026N (FOR U)	nsp
IC502	S	nsp	PROGRAM DVM4026P (FOR S)	nsp
IC502	N	nsp	PROGRAM DVM4035E (FOR N)	nsp
IC503		9965 000 11329	IC MM74HCT244SJ	*HC700430R
IC505		4822 209 33521	IC TC7W04FU	HC10382050
IC506		9965 000 11664	IC BA18BC0FP-E2	*HC107570R
IC901		9965 000 11331	IC UPD780232GC-043-8BT	*HC107500R
IC902		9965 000 06999	IC KIA7042P	*HC105670R
TRANSISTORS				
▲ Q101	U, F	nsp	KSE13005F	*HT300910R
Q102	U, F	nsp	KTC3198 (KTC1815)	*HT300720R
Q107		9965 000 07007	KSB1151	*HT200390R
Q108		4822 130 10923	KTC3199 MINI	*HT300730R
Q2A1		9965 000 04336	2SA1037K	HX110371A0
Q2A2		9965 000 04336	2SA1037K	HX110371A0

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
Q2M1		4822 130 60729	DTC124EK	*BA001080R
Q401		4822 130 10462	KTA1267 MINI	*HT100490R
Q402		4822 130 10462	KTA1267 MINI	*HT100490R
Q403		4822 130 10923	KTC3199 MINI	*HT300730R
Q404	N	4822 130 10923	KTC3199 MINI	*HT300730R
Q405		4822 130 10923	KTC3199 MINI	*HT300730R
Q406	N	4822 130 10923	KTC3199 MINI	*HT300730R
Q407		4822 130 10462	KTA1267 MINI	*HT100490R
Q409		4822 130 10462	KTA1267 MINI	*HT100490R
Q411		4822 130 10462	KTA1267 MINI	*HT100490R
Q413		4822 130 10462	KTA1267 MINI	*HT100490R
Q414				
∫		4822 130 10923	KTC3199 MINI	*HT300730R
Q419				
Q425	N	4822 130 10462	KTA1267 MINI	*HT100490R
Q426	N	4822 130 10462	KTA1267 MINI	*HT100490R
Q427	N	4822 130 10462	KTA1267 MINI	*HT100490R
Q428	N	4822 130 10923	KTC3199 MINI	*HT300730R
Q429	N	4822 130 10462	KTA1267 MINI	*HT100490R
Q430	N	4822 130 10098	KRC103M (KRC1203)	*HT300790R
Q431	N	4822 130 10098	KRC103M (KRC1203)	*HT300790R
Q432	N	4822 130 10098	KRC103M (KRC1203)	*HT300790R
Q507		9965 000 07008	UMZ1N	BA30002210
Q901		4822 130 10145	KRA103M (KRA2203)	*HT100630R
Q902		4822 130 10923	KTC3199 MINI	*HT300730R
Q903		4822 130 10462	KTA1267 MINI	*HT100490R
Q904	F	4822 130 10145	KRA103M (KRA2203)	*HT100630R
Q905	F	4822 130 10098	KRC103M (KRC1203)	*HT300790R
Q906	F	4822 130 10098	KRC103M (KRC1203)	*HT300790R
Q907	F	4822 130 10098	KRC103M (KRC1203)	*HT300790R
Q908	F	4822 130 10462	KTA1267 MINI	*HT100490R
RESISTORS				
R01		nsp	FILM 390 Ω 1/6W J	nsp
R02		nsp	FILM 390 Ω 1/6W J	nsp
R03		nsp	FILM 390 Ω 1/6W J	nsp
R101		nsp	CEMENT 2.7/2Ω	nsp
R104	U, F	nsp	METAL 33k Ω 2W J	GA05332020
R104	S, N	9965 000 07013	METAL 56k Ω 2W J	GA05563020
R109	U, F	nsp	FILM 15k Ω 1/6W J	nsp
R110	U, F	4822 053 10121	METAL 120 Ω 1W J	GA05121010
R111	U, F	nsp	METAL 1 Ω 2W J	GA05010020
R112	S, N	nsp	FILM 3.9 Ω 1/6W J	nsp
R112	U, F	nsp	FILM 8.2k Ω 1/6W J	nsp
R114		nsp	FILM 100k Ω 1/6W J	nsp
R115	U, F	nsp	FILM 4.7 Ω 1/6W J	nsp
R115	S, N	nsp	FILM 5.6 Ω 1/6W J	nsp
R117	U, F	nsp	FILM 100 Ω 1/6W J	nsp
R120		nsp	FILM 1k Ω 1/6W J	nsp
R121		nsp	FILM 1.2k Ω 1/6W J	nsp
R122		4822 053 10121	METAL 120 Ω 1W J	GA05121010
R123		nsp	FILM 1k Ω 1/6W J	nsp
R124		nsp	FILM 330 Ω 1/6W J	nsp
R125		nsp	FILM 3.9k Ω 1/6W J	nsp
R126		nsp	FILM 1k Ω 1/6W J	nsp
R127		nsp	MYLAR 3.6k Ω 1/8 W ±1%	nsp
R128		nsp	MYLAR 3.3k Ω 1/6 W ±1%	nsp
R130		nsp	FILM 10k Ω 1/6W J	nsp
R131		nsp	FILM 220k Ω 1/6W J	nsp
R132		nsp	FILM 220k Ω 1/6W J	nsp
R140		nsp	FILM 10k Ω 1/6W J	nsp
R141		nsp	FILM 10k Ω 1/6W J	nsp
R144	S, N	nsp	FILM 330 Ω 1/6W J	nsp
R144	U, F	4822 053 10121	METAL 120 Ω 1W J	GA05121010
R145		nsp	FILM 470 Ω 1/6W J	nsp
R201				
∫		nsp	METAL CHIP 0 Ω 1/16W J	nsp
R204				

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POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)	POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
R207		nsp	METAL CHIP 1M Ω 1/16W J	nsp	R2M6		nsp	METAL CHIP 22k Ω 1/16W J	nsp
R217		nsp	METAL CHIP 10 Ω 1/16W J	nsp	R2M7		nsp	METAL CHIP 1.2k Ω 1/16W J	nsp
R218		nsp	METAL CHIP 470 Ω 1/16W J	nsp	R2M8		nsp	METAL CHIP 10k Ω 1/16W J	nsp
R219		nsp	METAL CHIP 10k Ω 1/16W J	nsp	R2M9		nsp	METAL CHIP 1k Ω 1/16W J	nsp
R220		nsp	METAL CHIP 10k Ω 1/16W J	nsp	R2N1		nsp	METAL CHIP 6.8k Ω 1/16W J	nsp
R221		nsp	METAL CHIP 10k Ω 1/16W J	nsp	R2N2		nsp	METAL CHIP 1k Ω 1/16W J	nsp
R230					R2N3		nsp	METAL CHIP 1k Ω 1/16W J	nsp
∫		nsp	METAL CHIP 100 Ω 1/16W J	nsp	R2N4		nsp	METAL CHIP 1k Ω 1/16W J	nsp
R237					R2N5		nsp	METAL CHIP 10k Ω 1/16W J	nsp
R238					R2N6		nsp	METAL CHIP 0 Ω 1/16W J	nsp
∫		nsp	METAL CHIP 0 Ω 1/16W J	nsp	R2N8		nsp	METAL CHIP 10k Ω 1/16W J	nsp
R242					R2N9		nsp	METAL CHIP 10k Ω 1/16W J	nsp
R271		nsp	METAL CHIP 0 Ω 1/16W J	nsp	R2P1		nsp	METAL CHIP 10k Ω 1/16W J	nsp
R273		nsp	METAL CHIP 0 Ω 1/16W J	nsp	R2P2		nsp	METAL CHIP 10k Ω 1/16W J	nsp
R274		nsp	METAL CHIP 620 Ω 1/16W J	nsp	R2P6		nsp	METAL CHIP 1k Ω 1/16W J	nsp
R275		nsp	METAL CHIP 910 Ω 1/16W J	nsp	R2Q7		nsp	METAL CHIP 6.8k Ω 1/16W J	nsp
R276		nsp	METAL CHIP 910 Ω 1/16W J	nsp	R2Q8		nsp	METAL CHIP 3.3k Ω 1/16W J	nsp
R277		nsp	METAL CHIP 150 Ω 1/16W J	nsp					
R278		nsp	METAL CHIP 0 Ω 1/16W J	nsp	R301		nsp	METAL CHIP 4.7k Ω 1/16W J	nsp
R279		nsp	METAL CHIP 0 Ω 1/16W J	nsp	R303		nsp	METAL CHIP 0 Ω 1/16W J	nsp
R280		nsp	METAL CHIP 0 Ω 1/16W J	nsp	R305		nsp	METAL CHIP 4.7k Ω 1/16W J	nsp
R281		nsp	METAL CHIP 2.2k Ω 1/16W J	nsp	R306		nsp	METAL CHIP 4.7k Ω 1/16W J	nsp
R291		nsp	METAL CHIP 0 Ω 1/16W J	nsp	R307		nsp	METAL CHIP 1k Ω 1/16W J	nsp
R292		nsp	METAL CHIP 1.2k Ω 1/16W J	nsp	R308		nsp	METAL CHIP 1k Ω 1/16W J	nsp
R293		nsp	METAL CHIP 2k Ω 1/16W J	nsp	R309		nsp	METAL CHIP 10k Ω 1/16W J	nsp
R294		nsp	METAL CHIP 150 Ω 1/16W J	nsp	R310		nsp	METAL CHIP 1k Ω 1/16W J	nsp
R295		nsp	METAL CHIP 2k Ω 1/16W J	nsp	R311		nsp	METAL CHIP 6.8k Ω 1/16W J	nsp
R296		nsp	METAL CHIP 150 Ω 1/16W J	nsp	R313		nsp	METAL CHIP 100 Ω 1/16W J	nsp
R297		nsp	METAL CHIP 1.2k Ω 1/16W J	nsp	R314				
					∫		nsp	METAL CHIP 10k Ω 1/16W J	nsp
R2A0		nsp	METAL CHIP 10k Ω 1/16W J	nsp	R317				
R2A1		nsp	METAL CHIP 91 Ω 1/16W J	nsp	R318		nsp	METAL CHIP 4.7k Ω 1/16W J	nsp
R2A2		nsp	METAL CHIP 12k Ω 1/16W $\pm 1\%$	nsp	R319		nsp	METAL CHIP 4.7k Ω 1/16W J	nsp
R2A4		nsp	METAL CHIP 100 Ω 1/16W J	nsp	R320		nsp	METAL CHIP 4.7k Ω 1/16W J	nsp
R2A5		nsp	METAL CHIP 0 Ω 1/16W J	nsp	R321		nsp	METAL CHIP 1k Ω 1/16W J	nsp
R2A6		nsp	METAL CHIP 1k Ω 1/16W J	nsp	R322		nsp	METAL CHIP 4.7k Ω 1/16W J	nsp
R2A9		nsp	METAL CHIP 0 Ω 1/16W J	nsp	R323		nsp	METAL CHIP 3.9k Ω 1/16W J	nsp
R2B1		nsp	METAL CHIP 100 Ω 1/16W J	nsp	R350		nsp	METAL CHIP 10k Ω 1/16W J	nsp
R2B2		nsp	METAL CHIP 0 Ω 1/16W J	nsp	R351				
R2B3		nsp	METAL CHIP 1k Ω 1/16W J	nsp	∫		nsp	METAL CHIP 100 Ω 1/16W J	nsp
R2B4		nsp	METAL CHIP 18 Ω 1/16W J	nsp	R360				
R2B5		nsp	METAL CHIP 18 Ω 1/16W J	nsp	R361		nsp	METAL CHIP 0 Ω 1/16W J	nsp
R2B6		nsp	METAL CHIP 22k Ω 1/16W J	nsp	R362		nsp	METAL CHIP 100 Ω 1/16W J	nsp
R2B7		nsp	METAL CHIP 6.8k Ω 1/16W J	nsp	R363		nsp	METAL CHIP 100 Ω 1/16W J	nsp
R2B8		nsp	METAL CHIP 150k Ω 1/16W J	nsp	R3F1		nsp	METAL CHIP 0 Ω 1/16W J	nsp
R2B9		nsp	METAL CHIP 150k Ω 1/16W J	nsp	R3F2		nsp	METAL CHIP 0 Ω 1/16W J	nsp
					R3F4		nsp	METAL CHIP 10k Ω 1/16W J	nsp
R2C0		nsp	METAL CHIP 39k Ω 1/16W J	nsp	R3F5		nsp	METAL CHIP 10k Ω 1/16W J	nsp
R2C1		nsp	METAL CHIP 39k Ω 1/16W J	nsp	R3F7		nsp	METAL CHIP 0 Ω 1/16W J	nsp
R2C2		nsp	METAL CHIP 1k Ω 1/16W J	nsp					
R2C3		nsp	METAL CHIP 1k Ω 1/16W J	nsp	R401		nsp	FILM 1k Ω 1/6W J	nsp
R2C4		nsp	METAL CHIP 100 Ω 1/16W J	nsp	R402		nsp	FILM 10k Ω 1/6W J	nsp
R2C6		nsp	METAL CHIP 0 Ω 1/16W J	nsp	R403		nsp	FILM 10 Ω 1/6W J	nsp
R2C7		nsp	METAL CHIP 0 Ω 1/16W J	nsp	R404		nsp	FILM 7.5k Ω 1/6W J	nsp
R2C8		nsp	METAL CHIP 18 Ω 1/16W J	nsp	R405		nsp	FILM 5.6k Ω 1/6W J	nsp
R2C9		nsp	METAL CHIP 18 Ω 1/16W J	nsp	R406		nsp	FILM 4.7k Ω 1/6W J	nsp
R2D0		nsp	METAL CHIP 1k Ω 1/16W J	nsp	R407		nsp	FILM 2.2k Ω 1/6W J	nsp
R2D1		nsp	METAL CHIP 0 Ω 1/16W J	nsp	R408		nsp	FILM 7.5k Ω 1/6W J	nsp
R2D2		nsp	METAL CHIP 1k Ω 1/16W J	nsp	R409		nsp	FILM 4.7k Ω 1/6W J	nsp
R2D6		nsp	METAL CHIP 91 Ω 1/16W J	nsp	R410		nsp	FILM 5.6k Ω 1/6W J	nsp
R2D7		nsp	METAL CHIP 4.7 Ω 1/16W J	nsp	R411		nsp	FILM 1k Ω 1/6W J	nsp
R2E6		nsp	METAL CHIP 0 Ω 1/16W J	nsp	R412		nsp	FILM 6.8k Ω 1/6W J	nsp
R2E7		nsp	METAL CHIP 6.8k Ω 1/16W J	nsp	R413		nsp	FILM 15k Ω 1/6W J	nsp
R2E9		nsp	METAL CHIP 5.6k Ω 1/16W J	nsp	R414		nsp	FILM 15k Ω 1/6W J	nsp
R2M1		nsp	METAL CHIP 1 Ω 1/10W J	nsp	R415		nsp	FILM 6.8k Ω 1/6W J	nsp
R2M2		nsp	METAL CHIP 1 Ω 1/10W J	nsp	R416		nsp	FILM 330 Ω 1/6W J	nsp
R2M3		nsp	METAL CHIP 22k Ω 1/16W J	nsp	R417	N	nsp	FILM 100 Ω 1/6W J	nsp
R2M4		nsp	METAL CHIP 3.3k Ω 1/16W J	nsp	R418		nsp	FILM 220 Ω 1/6W J	nsp
R2M5		nsp	METAL CHIP 15k Ω 1/16W J	nsp	R419		nsp	FILM 220 Ω 1/6W J	nsp

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)	POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
R420	N	nsp	FILM 100 Ω 1/6W J	nsp	R539		nsp	METAL CHIP 100 Ω 1/16W J	nsp
R421		nsp	FILM 100k Ω 1/6W J	nsp	R540		nsp	METAL CHIP 330 Ω 1/16W J	nsp
R422		nsp	FILM 100k Ω 1/6W J	nsp	R541		nsp	METAL CHIP 10k Ω 1/16W J	nsp
R423	N	nsp	FILM 100k Ω 1/6W J	nsp	R542		nsp	METAL CHIP 1.2k Ω 1/16W J	nsp
R424	N	nsp	FILM 1k Ω 1/6W J	nsp	R550		nsp	METAL CHIP 0 Ω 1/16W J	nsp
R425		nsp	FILM 1k Ω 1/6W J	nsp	R588				
R426		nsp	FILM 1k Ω 1/6W J	nsp	}		nsp	METAL CHIP 75 Ω 1/16W J	nsp
R427	N	nsp	FILM 1k Ω 1/6W J	nsp	R591				
R428		nsp	FILM 1k Ω 1/6W J	nsp	R597		nsp	METAL CHIP 0 Ω 1/16W J	nsp
R429		nsp	FILM 1k Ω 1/6W J	nsp	R601		nsp	FILM 4.7k Ω 1/6W J	nsp
R430	N	nsp	FILM 100 Ω 1/6W J	nsp	R602		nsp	FILM 47k Ω 1/6W J	nsp
R431		nsp	FILM 330 Ω 1/6W J	nsp	R603		nsp	FILM 47k Ω 1/6W J	nsp
R432	N	nsp	FILM 100 Ω 1/6W J	nsp	R604		nsp	FILM 22 Ω 1/6W J	nsp
R433		nsp	FILM 220 Ω 1/6W J	nsp	R605		nsp	FILM 1k Ω 1/6W J	nsp
R434	N	nsp	FILM 100k Ω 1/6W J	nsp	R615		nsp	FILM 75 Ω 1/6W J	nsp
R435		nsp	FILM 100k Ω 1/6W J	nsp	R617		nsp	FILM 75 Ω 1/6W J	nsp
R436		nsp	FILM 220 Ω 1/6W J	nsp	R619		nsp	FILM 22 Ω 1/6W J	nsp
R437		nsp	FILM 100k Ω 1/6W J	nsp	R620	F	nsp	FILM 39 Ω 1/6W J	nsp
R438		nsp	FILM 100 Ω 1/6W J	nsp	R621	F	nsp	FILM 33 Ω 1/6W J	nsp
R439		nsp	FILM 560 Ω 1/6W J	nsp	R622	F	nsp	FILM 39 Ω 1/6W J	nsp
R441		nsp	FILM 100 Ω 1/6W J	nsp	R623	F	nsp	FILM 33 Ω 1/6W J	nsp
R442		nsp	FILM 560 Ω 1/6W J	nsp	R626	F	nsp	FILM 39 Ω 1/6W J	nsp
R444		nsp	FILM 100 Ω 1/6W J	nsp	R627	F	nsp	FILM 33 Ω 1/6W J	nsp
R445		nsp	FILM 560 Ω 1/6W J	nsp	R630	N	nsp	FILM 1k Ω 1/6W J	nsp
R447		nsp	FILM 10 Ω 1/6W J	nsp	R632	N	nsp	FILM 39 Ω 1/6W J	nsp
R448		nsp	FILM 330 Ω 1/6W J	nsp	R633	N	nsp	FILM 33 Ω 1/6W J	nsp
R449	N	nsp	FILM 10k Ω 1/6W J	nsp	R634	N	nsp	FILM 39 Ω 1/6W J	nsp
R450		nsp	FILM 10k Ω 1/6W J	nsp	R635	N	nsp	FILM 33 Ω 1/6W J	nsp
R451		nsp	FILM 2.2k Ω 1/6W J	nsp	R636	N	nsp	FILM 39 Ω 1/6W J	nsp
R452					R637	N	nsp	FILM 33 Ω 1/6W J	nsp
}		nsp	FILM 1k Ω 1/6W J	nsp	R644	N	nsp	FILM 75 Ω 1/6W J	nsp
R456					R645	N	nsp	FILM 75 Ω 1/6W J	nsp
R469	N	nsp	FILM 330 Ω 1/6W J	nsp	R646		nsp	FILM 4.7k Ω 1/6W J	nsp
R471	N	nsp	FILM 680 Ω 1/6W J	nsp	R647		nsp	FILM 39 Ω 1/6W J	nsp
R473	N	nsp	FILM 680 Ω 1/6W J	nsp	R648		nsp	FILM 33 Ω 1/6W J	nsp
R474	N	nsp	FILM 100 Ω 1/6W J	nsp	R649		nsp	FILM 39 Ω 1/6W J	nsp
R475	N	nsp	FILM 470 Ω 1/6W J	nsp	R650		nsp	FILM 33 Ω 1/6W J	nsp
R478	N	nsp	FILM 10k Ω 1/6W J	nsp	R653		nsp	FILM 39 Ω 1/6W J	nsp
R479	N	nsp	FILM 2.2k Ω 1/6W J	nsp	R654		nsp	FILM 33 Ω 1/6W J	nsp
R480					R657	F	nsp	FILM 10k Ω 1/6W J	nsp
}	N	nsp	FILM 1k Ω 1/6W J	nsp	R659		9965 000 06959	COIL BEAD CORE BFS3550R2FD8	*FC900210R
R485									
R486		nsp	FILM 100 Ω 1/6W J	nsp	R901	F	nsp	FILM 10k Ω 1/6W J	nsp
R495	N	nsp	FILM 68 Ω 1/6W J	nsp	R902	F	nsp	FILM 10k Ω 1/6W J	nsp
					R903		nsp	FILM 680 Ω 1/6W J	nsp
R501		nsp	METAL CHIP 3.3k Ω 1/16W J	nsp	R904		nsp	FILM 1.2k Ω 1/6W J	nsp
R503		nsp	METAL CHIP 0 Ω 1/16W J	nsp	R905		nsp	FILM 1.5k Ω 1/6W J	nsp
R504		nsp	METAL CHIP 100 Ω 1/16W ±1%	nsp	R906		nsp	FILM 3.3k Ω 1/6W J	nsp
R505		nsp	METAL CHIP 10 Ω 1/16W J	nsp	R907		nsp	FILM 4.7k Ω 1/6W J	nsp
R506		nsp	METAL CHIP 1k Ω 1/16W J	nsp	R908		nsp	FILM 8.2k Ω 1/6W J	nsp
R514		nsp	METAL CHIP 22 Ω 1/16W J	nsp	R909		nsp	FILM 15k Ω 1/6W J	nsp
R515		nsp	METAL CHIP 22 Ω 1/16W J	nsp	R910	F	nsp	FILM 4.7k Ω 1/6W J	nsp
R517					R911		nsp	FILM 33k Ω 1/6W J	nsp
}		nsp	METAL CHIP 22 Ω 1/16W J	nsp	R912		nsp	FILM 820 Ω 1/6W J	nsp
R520					R921		nsp	FILM 100 Ω 1/6W J	nsp
R521		nsp	METAL CHIP 4.7k Ω 1/16W J	nsp	R930		nsp	FILM 10k Ω 1/6W J	nsp
R522		nsp	METAL CHIP 22 Ω 1/16W J	nsp	R931		nsp	FILM 10k Ω 1/6W J	nsp
R523		nsp	METAL CHIP 4.7k Ω 1/16W J	nsp	R932		nsp	FILM 3.3k Ω 1/6W J	nsp
R524		nsp	METAL CHIP 1k Ω 1/16W J	nsp	R933		nsp	FILM 330 Ω 1/6W J	nsp
R525		nsp	METAL CHIP 22 Ω 1/16W J	nsp	R934		nsp	FILM 10k Ω 1/6W J	nsp
R527		nsp	METAL CHIP 1.2k Ω 1/16W J	nsp	R935		nsp	FILM 47k Ω 1/6W J	nsp
R530					R936		nsp	FILM 100 Ω 1/6W J	nsp
}		nsp	METAL CHIP 1.2k Ω 1/16W J	nsp	R938		nsp	FILM 1k Ω 1/6W J	nsp
R533					R941		nsp	FILM 2.2k Ω 1/6W J	nsp
R534		nsp	METAL CHIP 680 Ω 1/16W J	nsp	R943		nsp	FILM 100 Ω 1/6W J	nsp
R535		nsp	METAL CHIP 1.2k Ω 1/16W J	nsp	R944		nsp	FILM 100 Ω 1/6W J	nsp
R536		nsp	METAL CHIP 0 Ω 1/16W J	nsp	R951				
R537		nsp	METAL CHIP 330 Ω 1/16W J	nsp	}		nsp	FILM 100k Ω 1/6W J	nsp
R538		nsp	METAL CHIP 270 Ω 1/16W J	nsp	R961				

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)	POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
R963		nsp	FILM 100 Ω 1/6W J	nsp	P4602		nsp	CONN. 00-6232-020-006-800 20PIN	nsp
R964		nsp	FILM 47k Ω 1/6W J	nsp	P5402		nsp	CONN. 2254-30S-T 30PIN	nsp
R965		nsp	FILM 100 Ω 1/6W J	nsp	P5901		nsp	CONN. 2254-30S-T 30PIN 2.0MM	nsp
R966		nsp	FILM 2.2k Ω 1/6W J	nsp	P6401		nsp	CONN. 00-6232-023-006-800 23PIN	nsp
R967		nsp	FILM 10k Ω 1/6W J	nsp	P6402		nsp	CONN. 00-6232-020-006-800 20P	nsp
R968		nsp	FILM 10k Ω 1/6W J	nsp	P9501		nsp	CONN. 2254-30P-T 30PIN 2.0MM	nsp
R969	F	nsp	FILM 4.7k Ω 1/6W J	nsp	P9901		nsp	CONN. GIL-S/9073AN	nsp
R970	F	nsp	FILM 4.7k Ω 1/6W J	nsp	P9902		nsp	CONN. GIL-S-04P-S2T2-EF	nsp
R988	F	nsp	FILM 10k Ω 1/6W J	nsp	P9903		nsp	CONN. GIL-S/9073AN	nsp
					P9904		nsp	CONN. GIL-S-04P-S2T2-EF	nsp
BC101		9965 000 06959	MISCELLANEOUS COIL BEAD CORE	*FC900210R	▲ PBP00		nsp	PWB(PCB) ASSY LED	nsp
▲ F101	S, N	4822 070 31602	BFS3550R2FD8	*FS000740R	▲ PBT00		nsp	PWB(PCB) ASSY KEY	nsp
▲ F101	U, F	nsp	FUSE SLOW BLOW 1600MA 250V	*FS000730R	PMD02		nsp	CONN. 00-6232-023-006-800 23PIN	nsp
F601		nsp	FILTER CFI06B1H101MF	nsp	PMD03		nsp	CONN. 00-6232-020-006-800 20P	nsp
F609		nsp	FILTER CFI06B1H101MF	nsp	▲ PW101		nsp	CONN. GP390 3P 3.96 STRAIGHT	nsp
F610	N	nsp	FILTER CFI06B1H101MF	nsp	RC901		9965 000 07015	IR RECEIVER TSOP2836WE1 36.7KHZ	*HW100550R
F611	N	nsp	FILTER CFI06B1H101MF	nsp	SW601	S, N	9965 000 11337	SWITCH SLIDE SKQ-23D15-G5-NA	*SS000620R
F612	N	nsp	FILTER CFI06B1H101MF	nsp	SW602		9965 000 11338	SWITCH TACT CSS-4206 DC 30V	*SS000730R
FH101		nsp	HOLDER FUSE CLIP	nsp	SW603		9965 000 11339	SWITCH SLIDE SKQ-22H06-G5-NA	*SS000740R
FH102		nsp	HOLDER FUSE CLIP	nsp	SW901		9965 000 07017	SWITCH TACT THVV502GAA 1 2V 5A	*SP001000R
JK601		9322 155 28667	JACK FIBER OPTIC GP1FA550TZ	*YJ002520R	SW906		9965 000 07017	SWITCH TACT THVV502GAA 12V 5A	*SP001000R
JK602	S, U, F	nsp	JACK CINCH CINCH DIN	*YT002680R	SW908		9965 000 07017	SWITCH TACT THVV502GAA 12V 5A	*SP001000R
JK602	N	9965 000 11332	JACK CINCH CINCH/DIN-17G DVM4500SERIE	*YT002690R	SW909		9965 000 07017	SWITCH TACT THVV502GAA 12V 5A	*SP001000R
JK603	N	9965 000 11333	JACK SCART 2F-21P 3.81 BAEUN	*YT002700R	T101	U, F	nsp	MAINS TRANSF. KSE-021K/LSE-021K	*TS001600R
JK604	F	nsp	SOCKET DRAWING YKF45-3001	*YT002710R	T101	S, N	9965 000 07018	MAINS TRANSF. SHT-023T/KSE-023T	*TS001170R
▲ L101	U, F	nsp	FILTER LS-AI99F-009	*FN000130R	▲ V101		nsp	VARISTOR SVC681D-10A	nsp
▲ L101	S, N	9965 000 11334	FILTER V-04350	*FN000140R	X201		9965 000 11340	CRYSTAL HC-49/S 33.8688MH	*JX000870R
L102		nsp	COIL CHOKE CHOCK(22MH)	nsp	X501		9965 000 11341	CRYSTAL HC-49/S 27MHZ 20P	*JX000880R
L103		nsp	COIL CHOKE CHOCK 20UH	nsp	X901		9965 000 11342	RESONATOR CSTLS5M00G53	*FQ000540R
L201		nsp	FILTER HB-1M2012-102JT	nsp	PBJIG		9965 000 07006	PWB(PCB) ASSY DVD-3000'S JIG A'Y	*DV3100JIG
L204		nsp	FILTER HB-1M2012-102JT	nsp					
L207		nsp	FILTER HB-1M2012-102JT	nsp					
L208		nsp	FILTER HB-1M2012-102JT	nsp					
L211		nsp	FILTER HB-1M2012-102JT	nsp					
L2A1		nsp	FILTER HB-1M2012-102JT	nsp					
L2A2		nsp	FILTER HB-1M2012-102JT	nsp					
L301		nsp	FILTER HB-1M2012-102JT	nsp					
L302		nsp	FILTER HB-1M2012-102JT	nsp					
L3F1		nsp	FILTER HB-1M2012-102JT	nsp					
L3F2		nsp	FILTER HB-1M2012-102JT	nsp					
L401		nsp	INDUCTOR 100M K	nsp					
L402		nsp	INDUCTOR 100M K	nsp					
L410	N	nsp	INDUCTOR 100M K	nsp					
L411	N	nsp	INDUCTOR 100M K	nsp					
L501		nsp	FILTER HB-1M2012-102JT	nsp					
L502		nsp	FILTER HB-1M2012-102JT	nsp					
L503		nsp	FILTER HB-1M2012-102JT	nsp					
L505		nsp	FILTER HB-1M2012-102JT	nsp					
L506		nsp	FILTER HB-1M2012-102JT	nsp					
L901		nsp	INDUCTOR 100M K	nsp					
L902		nsp	INDUCTOR 100M K	nsp					
P3301		nsp	CONN. 04-6232-015-010-000	nsp					
P4301		nsp	CONN. 2254-30P-T 30PIN 2.0MM	nsp					
P4601		nsp	CONN. 00-6232-023-006-800 23PIN	nsp					

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

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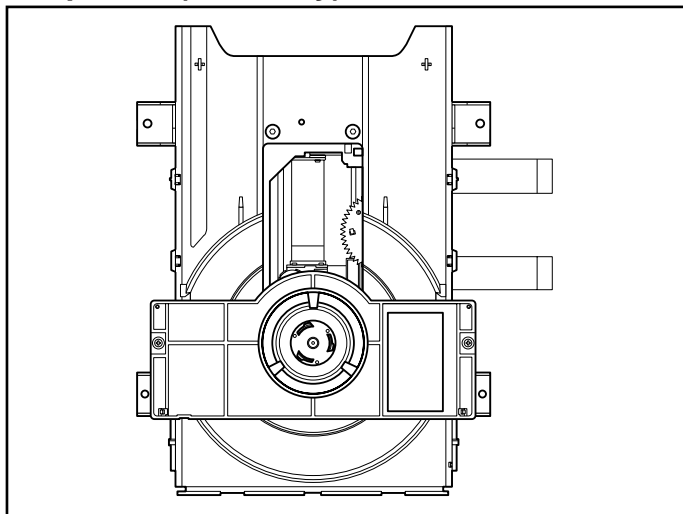
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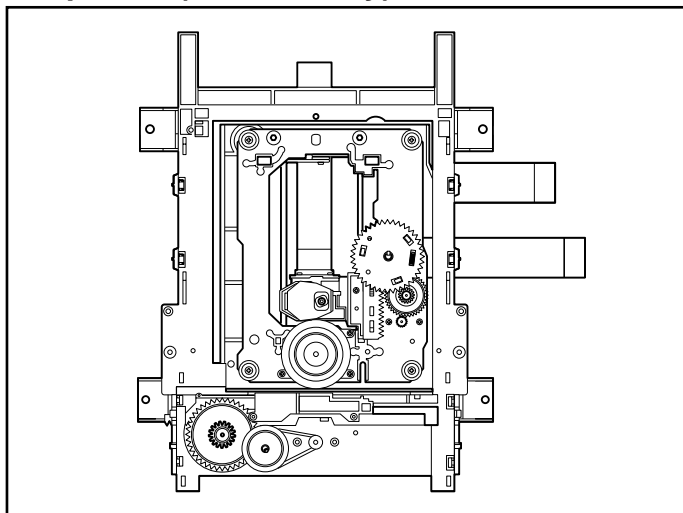
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DECK MECHANISM PARTS LOCATION

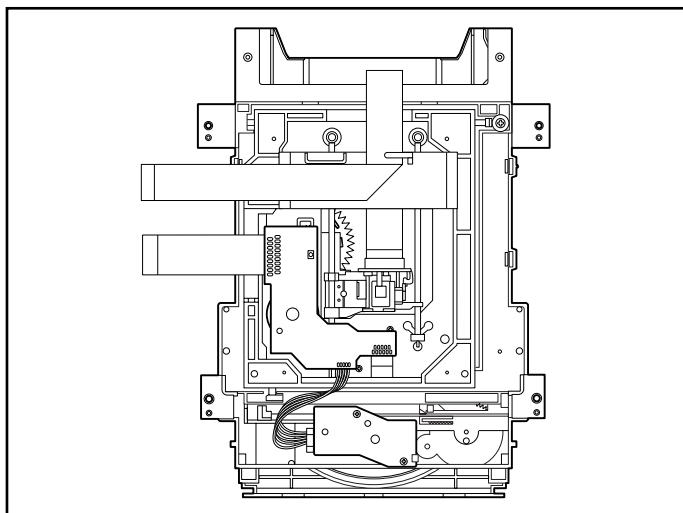
• Top View (With Tray)



• Top View (Without Tray)



• Bottom View



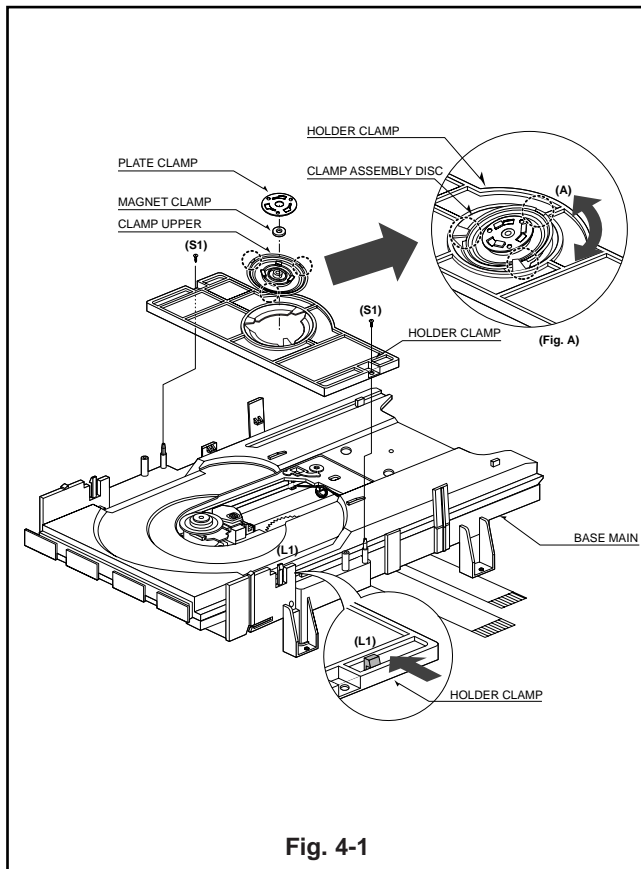
Procedure		Parts	Fixing Type	Disassembly	Figure
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1, 2, 6, 8, 9	10	Gear Assembly Rack	1 Screw		4-3
1, 2, 7	11	Rubber Rear			4-3
1, 2, 7	12	Frame Assembly Up/Down	1 Screw	Bottom	4-4
1, 2	13	Belt Loading	1 Locking Tab		4-4
1, 2, 13	14	Gear Pulley			4-4
1, 2, 13, 14	15	Gear Loading	1 Locking Tab		4-4
1, 2, 7, 12, 13, 14	16	Guide Up/Down			4-4
1, 2, 13	17	PWB Assembly Loading	1 Locking Tab 1 Hook 2Screw	Bottom	4-4
1, 2, 7, 12, 13, 14, 15, 16, 17	18	Base Main	2 Locking Tabs		4-4

Note

When reassembling, perform the procedure in reverse order.

The "Bottom" on Disassembly column of above Table indicates the part should be disassembled at the Bottom side.

DECK MECHANISM DISASSEMBLY



1. Holder Clamp (Fig. 4-1)

- 1) Release 2 Screws(S1).
- 2) Unhook 2 Locking Tabs(L1).
- 3) Lift up the Holder Clamp and then separate it from the Base Main.

1-1. Clamp Assembly Disc

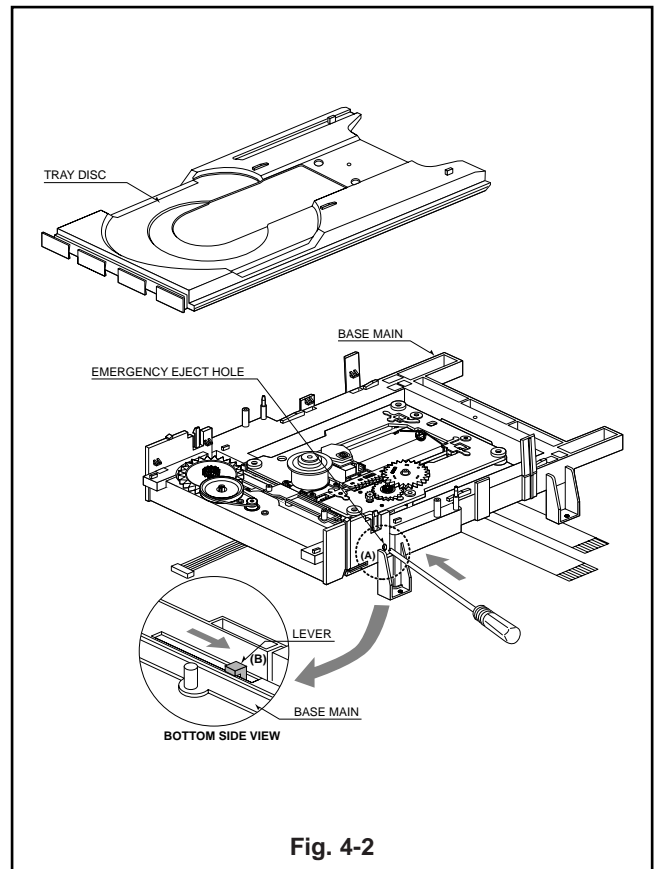
- 1) Place the Clamp Assembly Disc as Fig. (A)
- 2) Lift up the Clamp Assembly Disc in direction of arrow(A).
- 3) Separate the Clamp Assembly Disc from the Holder Clamp.

1-1-1. Plate Clamp

- 1) Turn the Plate Clamp to counterclockwise direction and then lift up the Plate Clamp.

1-1-2. Magnet Clamp

1-1-3. Clamp Upper



2. Tray Disc (Fig. 4-2)

- 1) Insert and push a Driver in the emergency eject hole(A) at the right side, or put the Driver on the Lever(B) of the Gear Emergency and pull the Lever(B) in direction of arrow so that the Tray Disc is ejected about 15~20mm.
- 2) Pull the Tray Disc until it is separated from the Base Main completely.

DECK MECHANISM DISASSEMBLY

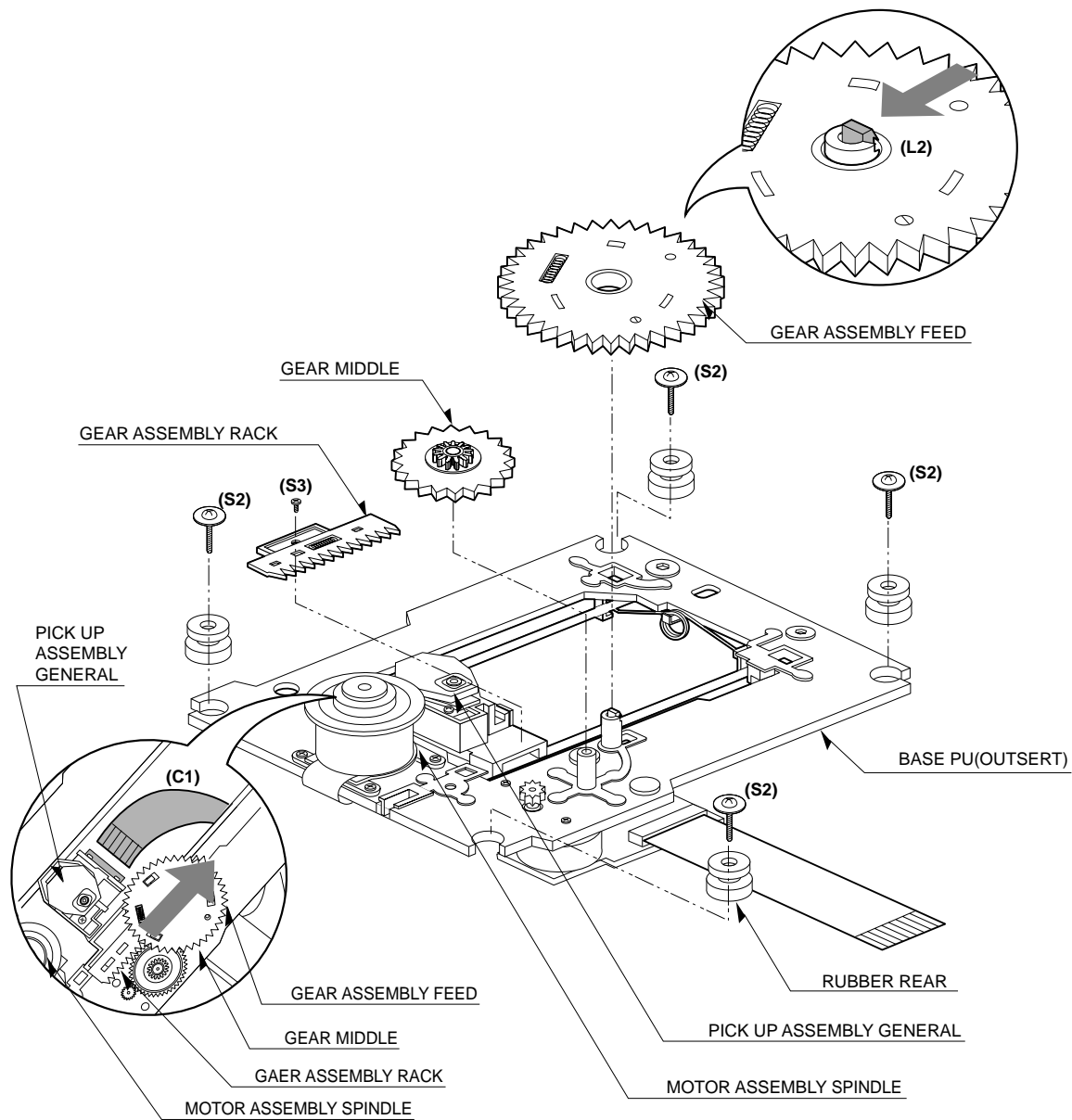


Fig. 4-3

3. Base Assembly Sled (Fig. 4-3)

- 1) Release 4 Screw(S2).
- 2) Disconnect the FFC Connector(C1)

3-1. Gear Assembly Feed

- 1) Unhook the Locking Tab(L2) in direction of arrow.

3-2. Gear Middle

3-3. Gear Assembly Rack

- 1) Release the Scerw(S3)

4. Rubber Rear (Fig. 4-3)

DECK MECHANISM DISASSEMBLY

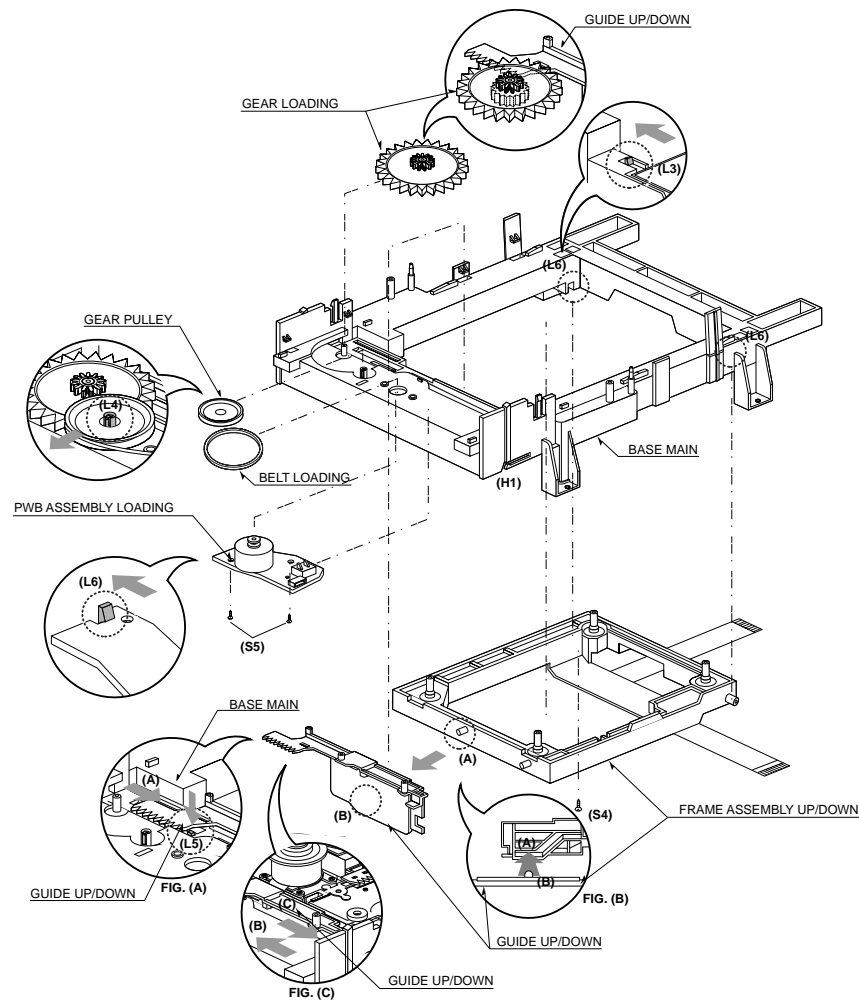


Fig. 4-4

5. Frame Assembly Up/Down

Note

Put the Base Main face down(Bottom Side)

- 1) Release the Screw(S4)
- 2) Unlock the Locking Tab(L3) in direction of arrow and then lift up the Frame Assembly Up/Down to separate it from the Base Main.

Note

- When reassembling move the Guide Up/Down in direction of arrow(C) until it is positioned as Fig.(C).
- When reassembling insert (A) portion of the Frame Assembly Up/Down in the (B) portion of the Guide Up/Down as Fig.(B)

6. Belt Loading(Fig. 4-4)

Note

Put the Base Assembly Main on original position(Top Side)

7. Gear pulley (Fig. 4-4)

- 1) Unlock the Locking Tab(L4) in direction of arrow(B) and then separate the Gear Pulley from the Base Main.

8. Gear Loading (Fig. 4-4)

9. Guide Up/Down (Fig. 4-4)

- 1) Move the Guide Up/Down in direction of arrow(A) as Fig.(A)
- 2) Push the Locking Tab(L5) down and then lift up the Guide Up/Down to separate it from the Base Main.

Note

When reassembling place the Guide Up/Down as Fig.(C) and move it in direction arrow(B) until it is locked by the Locking Tab(L5). And confirm the Guide Up/Down as Fig.(A)

10. PWB Assembly Loading

Note

Put the Base Main face down(Bottom Side)

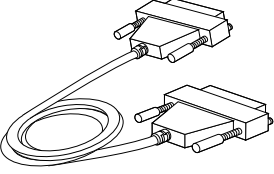
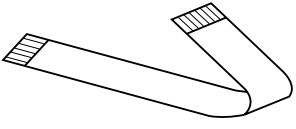
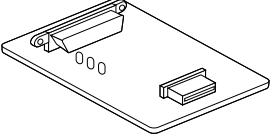
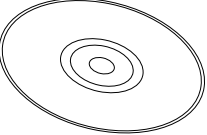
- 1) Release 2 Screws(S5)
- 2) Unhook the Loading Motor Connector (C2) from the Hook (H1) on the Base Main.
- 3) Unlock 2 Locking Tabs(L6) and separate the PWB Assembly Loading from the Base Main.

11. Base Main(Fig. 4-4)

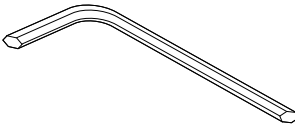
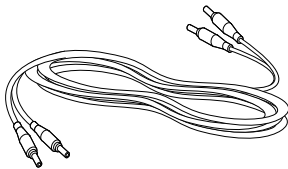
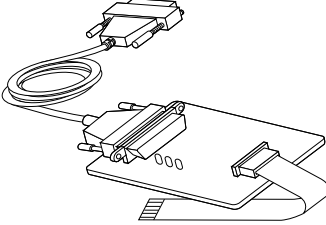
DECK MECHANISM ADJUSTMENT

1. Tools and Fixtures for SVC

- For SVC Program Down-Load

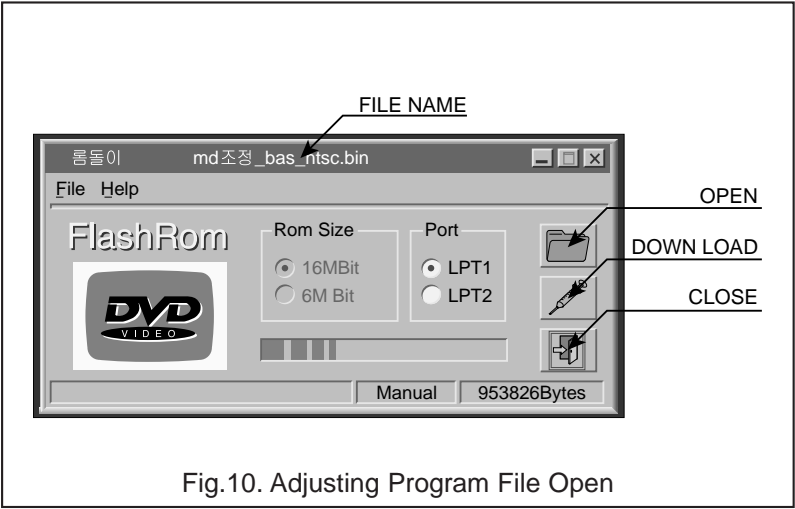
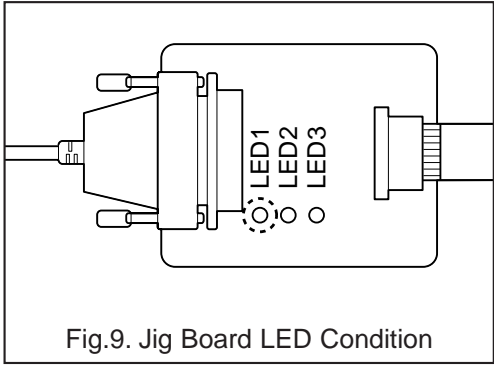
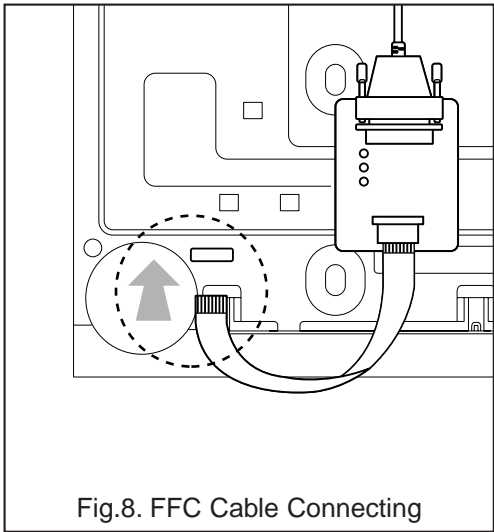
 <p>Not spare parts Fig.1. Printer Cable</p>	 <p>Included in <Jig board> Fig.2. FFC Cable (15 pin)</p>	 <p>PART NO.*DV3100JIG Fig.3. Jig Board</p>	 <p>Fig.4. Deviation Disc (0.8mm)</p>
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- For T-Skew and R-Skew Adjustment

 <p>Not spare parts Fig.5. L-Wrench(3mm)</p>	 <p>Not spare parts Fig.6. RCA Jack</p>	 <p>Fig.7. Connecting Method</p>
--	--	--

2. Install Process

1. Connect Fig. 1, 2, 3 as Fig. 7.
2. Plug out the Power cord of DVD set.
3. Connect FFC Cable(Fig.2) to the Connector on DVD Set(Fig.8)
4. Connect Printer Cable(Fig.1) to the P.C.Printer Port (LPT1).
5. Plug in the DVD Power cord.
6. Press the Menu key on Remocon.
7. Confirm No.1 LED(RED Color) of Jig board is ON. (Fig.9)
8. Perform The S/W for Down-load at P.C.
9. Open the Program File for Adjusting(Fig.10)
10. Click the Down-load Icon and perform Program Down-load.
11. Displayed remaining time.
12. Confirm LED No.1(RED) and No.2(RED) is ON.
13. Plug out the DVD Set Power cord.
14. Disconnect the FFC Cable.



DECK MECHANISM ADJUSTMENT

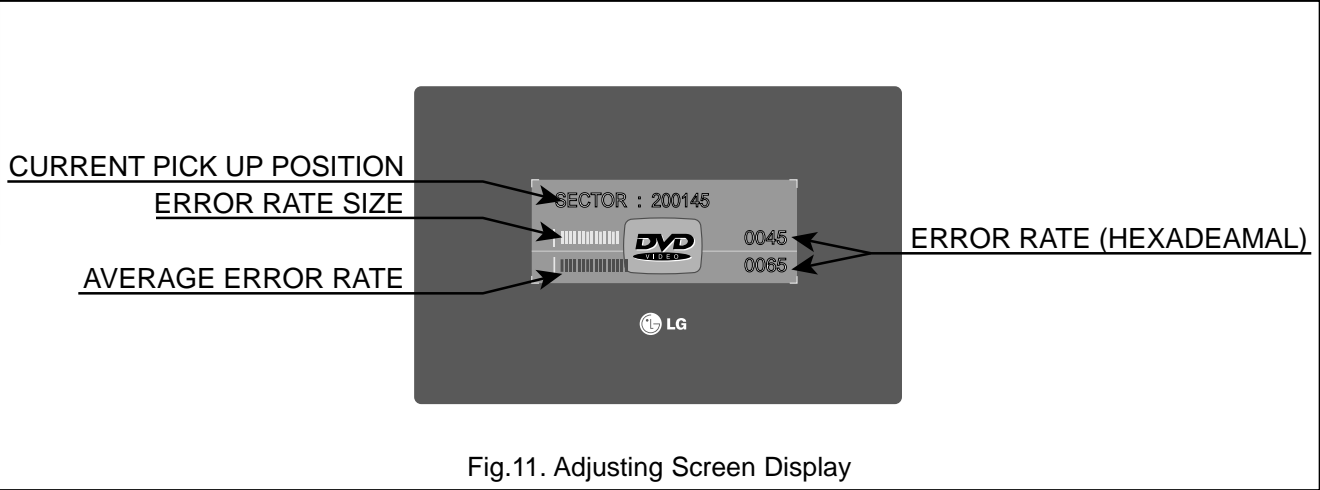


Fig.11. Adjusting Screen Display

3. Adjustment Procedure

1. Insert Disc(Only Open/Close Key Pressing)
 2. Wait Until the Sector Display is about 200,000 (Fig.11)
 3. Adjust R-Skew adjusting Point until the Error rate has Minimum rate with L-wrench (3mm).
 4. Adjust T-Skew Adjusting Point until the Error rate has Minimum rate.
 5. Repeat No. 3, 4 adjusting procedure until the Error rate have Minimum rate.
 6. Error rate; SVC-3561 (ABEX) Disc=below 30 and TDV-533 (ABEX) Disc=below 100. If not, Please confirm Play ability on screen.
- # You can watch the screen when pressing the Stop key after the Adjusting is finished, Then perform Play and Scan/Skip operation at Chapter1 and Chapter16 and confirm screen condition, normal or abnormal.

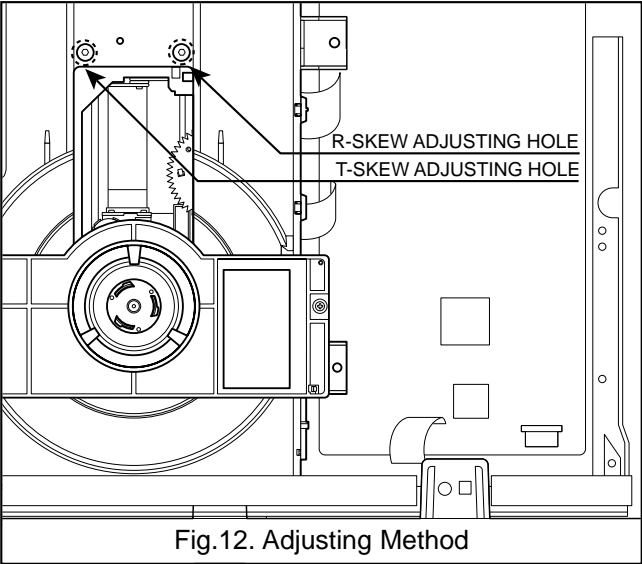


Fig.12. Adjusting Method

How to upgrade by upgrade DISC. (*DV6200CDR)

Connect the DVD Player to [TV] and Operate by using [Remote Controller]

1. Reading upgrade disc

- 1.1) Connect AC plug to mains power outlet.
- 1.2) Push **OPEN/CLOSE** button , then open the disc tray. (Turned Power ON automatically)
- 1.3) Place the upgrade Disc on the disc tray and close the tray.
- 1.4) FTD indicates **[Press Up]** when Disc is acknowledged.
- 1.5) Push **ARROW (up)** button of Remote Controller .
- 1.6) FTD indicates **[READ 0]**
If FTD indicated **[READ 1]** or other number, please refer to 3. Error message.
- 1.7) FTD indicates **[UPGRADE 0]** and begin to writing.
(Software writing into Flash ROM)
- 1.8) After few minutes, FTD indicate **[FINISHED]** and write completed.
(Software finished write into Flash ROM)
- 1.9) When upgrade is finished, open the tray automatically.
- 1.10) Remove the disc.
- 1.11) Push **POWER** button and turn off the power.

2. Reset and MICOM version check

When upgrade is finished, the unit is should be resetting in order to finalize Upgrade.

The reset procedures are followings.

- 2.1) Push **POWER** button.
- 2.2) Push **SETUP** button.
- 2.3) Select **"TV aspect"**
- 2.4) Push **ARROW(right)** button"
- 2.5) Push **ARROW (up)** button or **ARROW (down)** button and choose **"16:9 wide"**.
Attention : Do not push select/enter button (Keep green triangle(>)mark)
If check mark is appeared, push arrow-right button and change to green triangle mark
- 2.6) Push **"Numeric button"** in the following turn.
1 → **3** → **9** → **7** → **1** → **3** → **9**
- 2.7) Push **SELECT/ENTER** button.
The connected TV indicates **"SYSTEM INFORMATION"**
Please check **"MICOM version"**.
If other number indicate, need to retry this procedure again.
- 2.8) Push **POWER** button and turn off the power.
Upgrade and Reset are success.

Example indicated

```
SYSTEM INFORMATION
MODEL      : DV6200/F1N
REGION-NO  :2
CHIP-ID    :PANTERA II
SERVO-VER  :b003
MICOM-VER  :V2.02 MP
PROM OPTION :XX XX XX XX XX XX

Factory Reset Done
```

3. Error messege

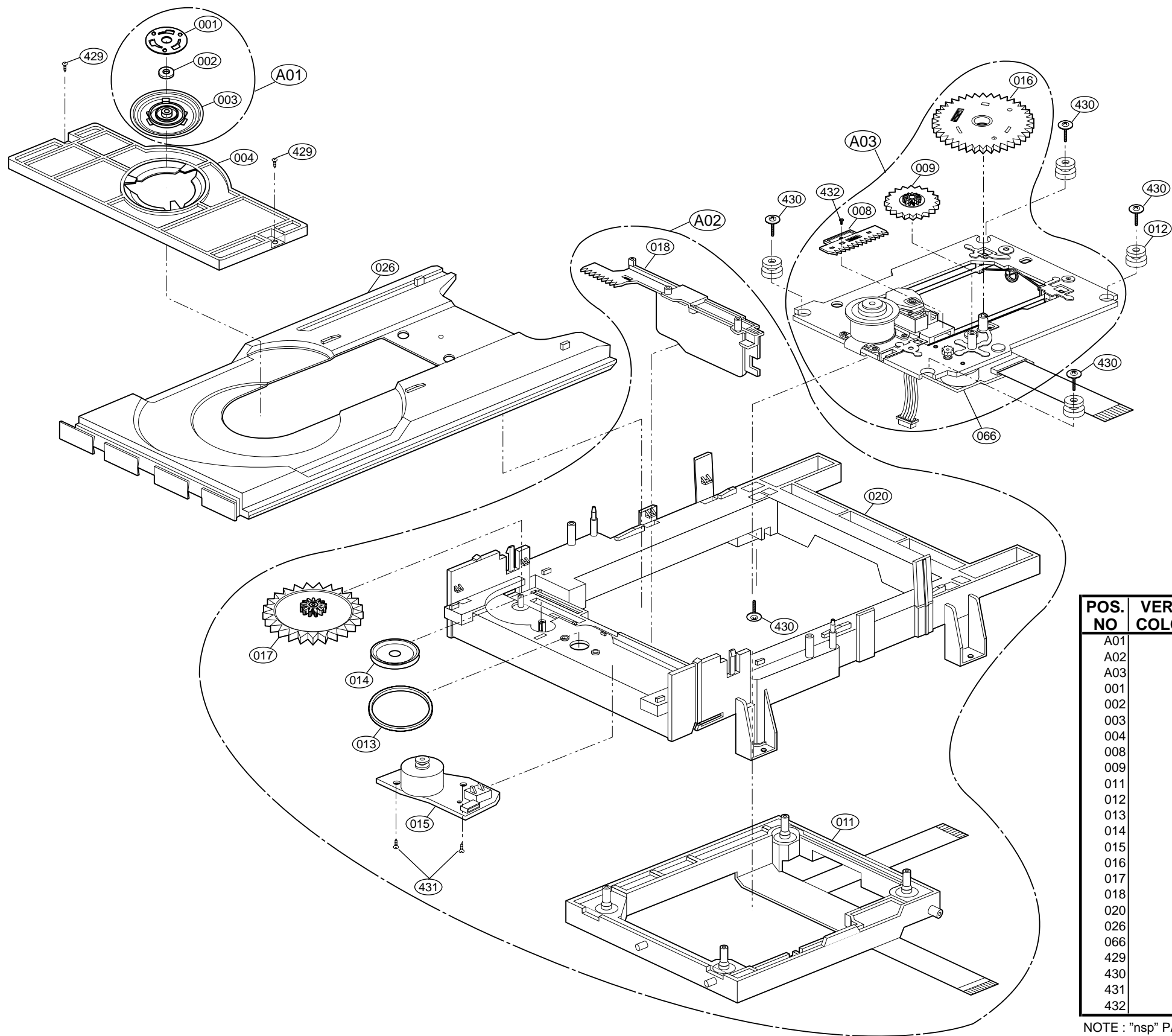
During reading the upgrade disc, error messages are as follows

[Error Num] = 1 ~ 3
You can retry to upgrade by disc.
Because, flash ROM is not erased data yet.

[Error Num] = 4 ~
It is very worst case. The flash ROM is broken during erasing or programming.
You need to rewrite from hardware (PC) for using another jig.

EXPLODED VIEW

1. Deck Mechanism Exploded View and Parts list



POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
A01		9965 000 11304	CLAMP ASSY DISC (DP4)	344W005510
A02		9965 000 11757	BASE ASSY MAIN(DP-4RM,BLDC)	345W304510
A03		9965 000 11758	BASE ASSY SLED (DP-4RM,BLDC)	345W401510
001		nsp	PLATE CLAMP	nsp
002		nsp	MAGNET CLAMP(LDM-R608,10*5,1*1.5T)	nsp
003		nsp	CLAMP UPPER	nsp
004		9965 000 06937	HOLDER CLAMP	304W271010
008		9965 000 06938	GEAR ASSY RACK	304W058010
009		9965 000 06939	GEAR MIDDLE	304W058020
011		nsp	FRAME ASSY UP/DOWN(DP2)	nsp
012		9965 000 11759	RUBBER REAR(E2,5040H-1054A)	346W259020
013		9965 000 06944	BELT LOADING	304W264010
014		9965 000 06945	GEAR PULLEY	304W262010
015		9965 000 11760	PWB(PCB) ASSY LOADING DP4	*ZZ001850R
016		9965 000 06947	GEAR ASSY FEED	304W058030
017		9965 000 06948	GEAR LOADING	304W058040
018		9965 000 06949	GUIDE UP/DOWN	304W127010
020		nsp	BASE MAIN	nsp
026		9965 000 06950	TRAY DISC	304W163010
066		9965 000 11761	PWB(PCB) ASSY EVNT	*ZZ001970R
429		nsp	SCREW, B-TITE	nsp
430		nsp	SCREW, +D2.0 6MM /NIY 4.5MM	nsp
431		nsp	SCREW,DRAWING +D2.0 6MM /ZNBK 4MM 1	nsp
432		nsp	SCREW, MACHINE	nsp

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.